

Falcon Field Employment Center Strategy Plan

September 2004





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EXECUTIVE SUMMARY

PURPOSE

With current and planned extension of the Loop 202, northeast Mesa is realizing substantial exposure to and connectivity with the rest of the valley. Though the Falcon Field area has been the location of substantial employment activity for many years, the area was formerly relatively remote to the rest of the city and the valley. Supporting and nurturing the development of regional employment centers at targeted areas in the city (such as Falcon Field, Williams Gateway, and Downtown Mesa) is beneficial to simultaneously accomplishing several city goals in a variety of areas and departments, such as economic development, transportation planning, land planning, and capital improvements planning.

This study is an effort to identify the unique attributes and issues facing the Falcon Field Employment Center (study area boundaries are shown in Figure 1) in order to identify the most appropriate business and industry to target for the area.

This study also serves to address a variety of related issues specific to the airport, including the leasing process for different tenant types on the airport itself, the development of a land use plan for the airport, and appropriate uses for the “orchard property” the city owns just west of the airport.

BACKGROUND

Falcon Field serves as home base for over 900 aircraft, making it one of the 10 largest airports in the U.S. in terms of based aircraft. The direct economic impact of Falcon Field was nearly \$600 million in 1999, second only to Sky Harbor Airport in the state. The Falcon Field Employment Center is a nearly 7,000 acre area that serves as one of the eight employment centers in the City of Mesa. There are approximately 10,000 employees working in the employment center boundaries today, with the majority being employed by aerospace and aviation industry cluster companies. According to the Maricopa Association of Governments more than 5 percent of all aerospace and aviation establishments and more than 11 percent of employment in the aerospace cluster in Maricopa County is concentrated within the Falcon Field Employment Center.

Available land is a clear strength of the Falcon Field Employment Center today. There are nearly 1,000 acres of major improved business and industrial parks and more than 60 percent of this land (nearly 600 acres) is currently undeveloped. This location is one of a select few in the entire valley within 30 minutes of Phoenix Sky Harbor International Airport that also includes many large parcels. Hundreds of

acres in the study area are fully improved and planned and zoned for commercial and industrial uses today.

The study was specifically aimed at enhancing job creation efforts for the Falcon Field Employment Center. To this end necessary tasks included identifying growing industries that could fit well in the area, performing interviews and conducting focus groups with local employers, developers, homeowner associations and other interested parties. The outcome of this helped to identify area strengths that will serve to facilitate job creation; and constraints and regulatory issues that limit the development potential of the study area.

Table 1 – Falcon Field Employment Center Strengths and Weaknesses	
Key Strengths	Key Weaknesses
Falcon Field Airport	Image of the City from its northern gateway
Fiber optic conduit loop	Availability of T-hangars
Extension of the Red Mountain Freeway	Falcon Field runway length as it relates to safety
Availability of fully improved and zoned land	Lack of amenities for businesses
Area labor force	Development process is perceived as not business friendly

A targeted industry analysis was performed and a total of 9 aerospace and aviation related industries were identified as the “best targets” meeting at least three of the four screening criteria utilized (wages, regional concentration and above average regional growth rate). In addition our analysis also identified a total of 36 non-aviation industries that also met the screening criteria.

KEY RECOMMENDATIONS

We have identified four key focus areas under which strategies have been developed, that when implemented will serve to generate revenue for the airport, and foster economic development and job creation for the Falcon Field Employment Center. The four focus areas include:

1. Falcon Field Airport
2. Employment Center Development and Boundaries
3. Commercial Development
4. Marketing and Partnerships

Opportunity is the overarching theme behind our recommendations. The Red Mountain Freeway (Loop 202) extension represents unprecedented access to this part of the city and will bring many new visitors and commuters to and through the Falcon Field Employment Center in coming years. The employment center and

surrounding area represents an intriguing prospect from the perspective of demographic and socioeconomic factors as well.

To better position Falcon Field Employment Center as a prime competitor in the Valley, we have identified a number of key overarching recommendations, which when implemented will help the area achieve its full potential as an employment center.

- Focus recruitment efforts on business within the key industry clusters of aerospace, advanced business services, and education.
- Encourage the development of support amenities that businesses desire, such as a business hotel and other business services.
- Initiate changes to the Falcon Field master lease document to make it more acceptable to lenders.
- Facilitate the creation of a technology network (using the Tech Oasis model) that will serve to foster collaboration among businesses.
- Enhance the appearance of the Falcon Field Airport, as this is the employment center's key economic engine.
- Address the lack of T-hangar space through changes to city policy and pricing, and provide for private sector executive hangar development.
- Safeguard aircraft operations and preserve existing aviation related business.
- Create a Falcon Field sub area plan
- Use the Economic Development Advisory Board as a sounding board for plan ideas and implementation.
- Facilitate and encourage economic development within the Employment Center through the use of incentives.

Specific strategies addressing these overarching recommendations are included in Chapter V, Employment Center Strategic Direction.

I. INTRODUCTION

PURPOSE OF THIS REPORT

Airports and their surrounding commercial and industrial uses are playing an increasingly important role in shaping urban and regional growth patterns. Planning efforts today need to go beyond noise mitigation and land use compatibility concerns and include a broader agenda that speaks to economic goals of the “airfront.”¹ In order to achieve regional and local objectives, it is important for staff and policy makers to understand the implications of planning and how various strategies effect airport operations and economic development.

This report is multi-faceted in its scope. The study is primarily a study of the Falcon Field Employment Center, specifically aimed at enhancing job creation efforts in the northern reach of the city. To this end necessary tasks included identifying growing industries that could fit well in the area, performing interviews and conducting focus groups with local employers, developers, and other interested parties, and identifying regulatory issues and other constraints that limit the development potential of the study area.

STUDY PROCESS

The study process included personal interviews on location with a number of the region’s key stakeholders including:

- major employers
- landowners and developers
- city staff and other governmental entities

The process also included focus groups with business owners and managers (on and off the airport), area homeowners associations and other interested groups. These meetings were held at the Mesa Public Safety Training Facility (which is located in the study area) during the month of January.

Appendix A contains a copy of the agenda of the focus groups and sign in sheets from the focus groups. Appendix B contains summaries of key findings from interviews and focus groups.

¹ Airfront is defined as the myriad of commercial, industrial and transportation facilities and services intrinsically tied to the airport.

A targeted industry analysis was performed to identify specific industries which would make the best targets for the Falcon Field Employment Center. Aerospace and aviation related targets were identified separately and were further analyzed for typical establishment size in order to better plan for future development opportunities on Falcon Field itself. Coffman Associates developed a land plan which included both employment generating and non employment generating aviation uses for Falcon Field using this input.

Lastly, strategies were developed to address or mitigate the issues which were identified that are negatively impacting the development potential of the Falcon Field Employment Center today. Included with these strategies are measures which will be indicative of the success of the plan.

II. STUDY AREA BACKGROUND

GEOGRAPHIC POSITION IN THE NORTHEAST VALLEY

As shown on Figure 1, the Falcon Field Employment Center encompasses an area far larger than just the airport. It includes a number of Mesa's largest private employers (such as Boeing and Talley) and up and coming businesses involved in biotechnology, high technology, and aerospace. The employment center is generally bounded by residential developments in the City of Mesa, and by the Salt River-Pima-Maricopa Indian Community to the north. The Roosevelt Water Conservation District Canal forms a natural boundary of much of the study area to the west.

AREA BUSINESS AND DEMOGRAPHIC DATA

The Falcon Field Employment Center and surrounding area represents an intriguing prospect from the perspective of demographic and socioeconomic factors as well. In 2000, there were more than 190,000 people within a 15 minute commute² and nearly one million within a 30 minute commute. As the extension of the Loop 202 continues this commute shed can be expected to grow in geographic area in addition to population growth that continues to take place.

A five mile ring around the employment center included a (2000) population of more than 122,000 with a median age of 39.8 and a median household income of \$45,339. These compare to Census 2000 figures of 33.2 median ages and a median household income of \$44,252 for the Phoenix-Mesa MSA as a whole.

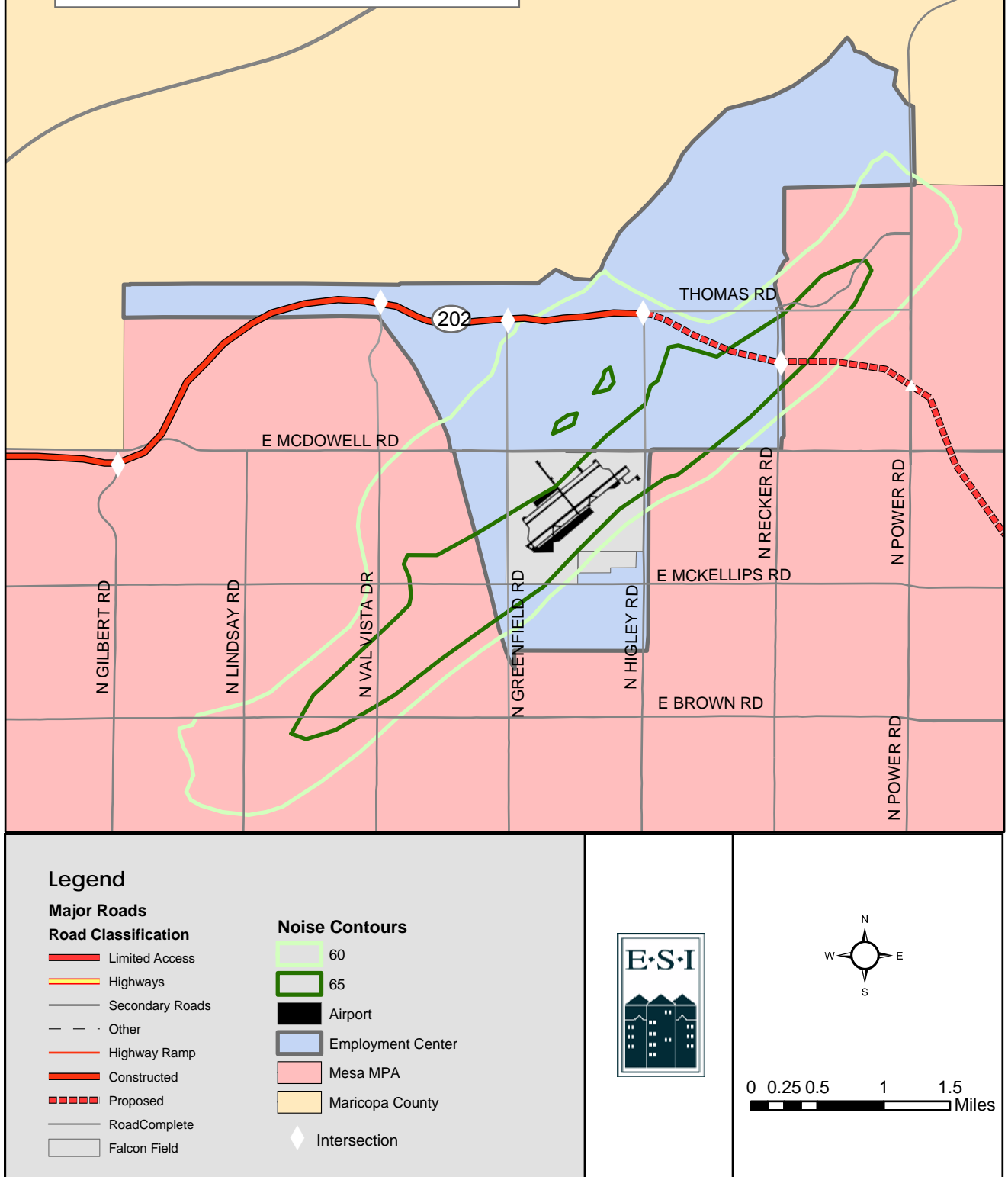
AREA STRENGTHS AND CONSTRAINTS

RED MOUNTAIN FREEWAY

The extension of the Red Mountain Freeway (Loop 202) is a key factor enhancing the viability of Falcon Field in years to come. The recent openings of Greenfield and Higley interchanges on the Red Mountain Freeway (Loop 202) have been development catalysts to new retail and restaurant activity, including a Wal-Mart south of Falcon Field and a new restaurant (the Monastery) opening just across the street (on Falcon Field). Current schedules call for the Loop 202 to be extended to Power Road by 2005 and to be connected with Route 60 by 2007. This will greatly enhance the labor market draw of the Falcon Field Employment Center.

² Data in this section derived from the City of Mesa's Falcon Field Employment Center Profile unless otherwise noted.

**Figure 1 - Falcon Field
Employment Center Study Area**



LAND USES

Falcon Field itself is an asset to business activity in the employment center area in two distinct ways. One is directly, where businesses require direct access or proximity to an airport for rapid turnaround of shipments or personnel or day to day use (such as helicopter testing). Also, the land surrounding airports is traditionally not downzoned to residential uses, so businesses choosing to locate in the employment center can generally be assured that other businesses will be their most common neighbors. Two exceptions exist today. One is the residential area west of the employment center boundary and a business use that caused substantial concern amount neighboring residents. Second is Barbara Bush Elementary School which is located in a business park. The latter has caused some difficulty and concern with respect to other appropriate neighboring tenants given issues such as traffic and noise during daytime hours.

AVAILABILITY OF SITES

Available land is a clear strength of the Falcon Field Employment Center today. This location is one of a select few in the entire valley within 30 minutes of Phoenix Sky Harbor International Airport that *also* includes many large parcels (three different 100+ acre business / industrial parks and more than 4,000 vacant acres including State Land and some undevelopable land such as Bureau of Reclamation land along the canal in the northern part of the study area). Hundreds of acres in the study area are fully improved and planned and zoned for commercial and industrial uses today, with another major business park (Longbow Business Park and Golf Club) slated come on line very soon. Maps of the industrial parks and major land holdings in the study area are included in the Falcon Field Employment Center section of this chapter.

TELECOM INFRASTRUCTURE

The City of Mesa is in the forefront in constructing a 36 mile fiber optic conduit loop, which when completed will connect its key employment centers. By utilizing creative financing and establishing strategic construction partnerships with telecommunication providers, Mesa expects to have this entire project completed by 2007. The Falcon Field portion of the conduit is nearly completed and runs north along Greenfield Road, east on McDowell Road and south on Power Road. Telecommunication providers can easily install their own fiber optic lines within the city's conduit without tearing up the city streets, which will save tax dollars in the long run. Advanced telecommunications infrastructure is a key site location requirement today for knowledge and technology based companies. By facilitating the installation of fiber optic cable, Mesa has strategically positioned itself as a formidable competitor in the economic development sweepstakes.

AREA IMAGE

The Red Mountain Freeway serves as the northern gateway to Falcon Field. The image along this route is poor and includes a variety of land uses including sand and gravel operations that visually impair the perception of the area. The City recognizes this and is actively working with the Salt River Pima-Maricopa Indian Community (SRPMIC) and the Army Corp of Engineers on the feasibility of restoring the riparian ecosystem extending along the Salt River from the Pima Freeway to the Granite Reef Dam. This project is known as Va Shlyay Akimel and consists of 4,130 acres along the Salt River.

FALCON FIELD AIRPORT

Falcon Field Airport is located approximately seven miles northeast of Downtown Mesa and eighteen miles east of Phoenix, and is owned and operated by the City of Mesa. Falcon Field serves as home base for over 900 aircraft, making it one of the 10 largest airports in the U.S. in terms of based aircraft. The direct economic impact of Falcon Field was nearly \$600 million in 1999, second only to Sky Harbor Airport in the state.

The airport was created during World War II, before America's direct involvement, when the U.S. agreed to help train British Royal Air Force combat pilots. After war with Japan was declared, American pilots were also trained there. The dry climate and openness of Arizona's terrain made the state a good choice for the training of both air and ground troops. After the war, the ownership and control of Falcon Field was transferred to the City of Mesa.

Not much aviation activity occurred at the airport after the war, and in 1956, the City of Mesa leased the airport to Rocket Power, Inc., a military contractor who produced solid propellants. During this time, Pacific Southwest Airlines provided air carrier services to the airport for a short period. The lease agreement was terminated in 1965, and the City of Mesa once again assumed control and operation of Falcon Field.

Many improvements have been done to Falcon Field throughout the years, including lengthening the main runway from its initial 2,600 feet to 4,300 as well as widening it to 100 feet in the early 1960's. The main runway was again lengthened in 1984 to 5,100 feet. Falcon Field's secondary runway is 3,800 feet long and 75 feet wide. During the past ten years, improvements have included utility extensions and improvements in addition to drainage and flood control projects. More than \$22 million in capital improvements projects are budgeted for the airport itself from the fiscal years 2004 through 2009.

FALCON FIELD EMPLOYMENT CENTER

The Falcon Field Employment Center is a nearly 7,000 acre area that serves as one of the eight employment centers in the City of Mesa. There are approximately 10,000 employees working in the employment center boundaries today, with the majority being employed by aerospace and aviation industry cluster companies. Approximately 600 acres of land are available in industrial and business parks in the study area. See Table 2.

Table 2 – Falcon Field Employment Center Summary	
Factor	Measure
Total Acres	Approx 6,859 ¹
Available Acres	Approx 600 acres of available land (lease or sale) in industrial/business parks in study area
Total Employment ²	9,719 (nearly 6,100 of which are employed in Aerospace and Aviation industry cluster)
Total Number of Businesses ²	110
Note: 1. Total area of the shape, also includes roads, canals, etc.	
Note: 2. Companies with 5 or more employees	
Source: MAG Major Employer Database 2001, ESI Corp	

Mesa's employment centers (and others throughout the metro area) are purposely designed to be destination locations for employment opportunities. These dense locations of employment activity are desirable from the perspectives of land use compatibility, transportation planning, and regional traffic patterns. Job creation is a major focus for the City of Mesa on a going forward basis. Overall, the city will have to add 3.46 jobs for every new housing unit in order to meet the job to housing balance goal identified in the city's economic development plan (of 0.56 jobs per capita).³ Rapid, intense, and essentially continuous development within the city's employment centers will be necessary to achieve this aggressive goal.

In addition to a simple accounting of the number of jobs, the city puts substantial effort toward achieving a mix of employment opportunities to serve all residents. While some opportunities in local serving industries (such as retail and restaurants) are essentially direct functions of population growth, many (most) higher wage employment opportunities are more a function of cost structures of comparative locations, access to an appropriate labor force, geographic positioning relative to and / or access to customers, and availability of land and buildings suitable for their operations. It should be noted that local and daytime population serving amenities (most notably restaurants, but also things like copy centers and dry cleaners) are

³ As discussed in the Mesa's Economic Development Strategy and identified as a goal in the general plan.

largely absent from the Falcon Field Employment Center today, though it is likely that the recent Wal-Mart development will serve to anchor some more of these types of uses in the near future.

The city has planned capital improvements projects of nearly \$48 million for the Falcon Field Employment Center as a whole from the 2004 through 2009 fiscal years, approximately half of which are to occur on the airport. Appendix C contains a detail list of planned CIP projects in the study area.

INDUSTRIAL AND BUSINESS PARKS

There are nearly 1,000 acres of major improved business and industrial parks in the Falcon Field Employment Center. More than 60 percent of this land (nearly 600 acres) is currently undeveloped, though the new freeway development is certainly expected to accelerate development in this part of the metro area on a going forward basis. The largest of the business and industrial parks, Longbow Business Park and Golf Club is just now getting underway and expected to be very active in the future. Excluding Longbow from this calculation yields more than 260 vacant acres currently or a 41.5% land vacancy rate in existing business and industrial parks.

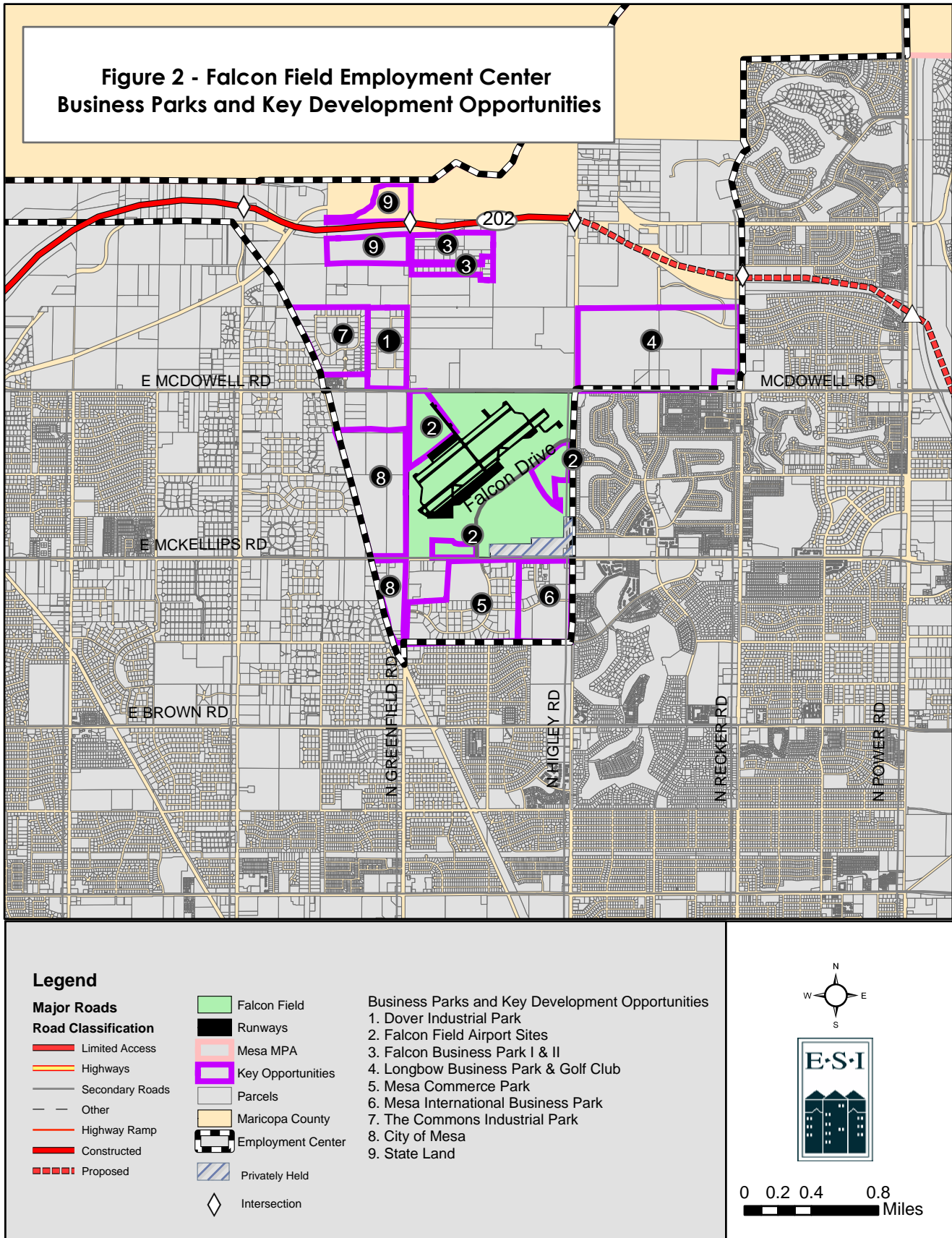
There are a mix of small individual user (one to two acre) build to suit and spec type properties (such as the Commons and Dover Industrial Park), some midsize parcels (such as the northwest corner of Falcon Field and Mesa International Business Park), and the potential for large scale developments (chiefly at Longbow Business Park) currently in the development mix at the Falcon Field Employment Center. Some other large scale land holdings which could represent future competition to these parks are discussed in the following section.

Table 3 – Falcon Field Employment Center Industrial and Business Parks					
Site # ¹	Park Name	Total Acres	Occupied Acres	Vacant Acres	% Vacant
1	Dover Industrial Park	68.00	20.00	48.00	70.6%
2	Falcon Field Airport Sites	205.75	116.85	88.90	43.2%
3	Falcon Industrial Park I & II	58.00	48.00	10.00	17.2%
4	Longbow Business Park & Golf Club ²	330.00	0.00	330.00	100.0%
5	Mesa Commerce Park	117.00	77.00	40.00	34.2%
6	Mesa International Business Center	90.00	18.00	72.00	80.0%
7	The Commons Industrial Park	107.00	98.00	9.00	8.4%
	Total	975.75	377.85	597.90	61.3%
	<i>Total Excluding Longbow</i>	<i>645.75</i>	<i>377.85</i>	<i>267.90</i>	<i>41.5%</i>
Note: 1. Numbers correspond to the map showing park locations on the following page.					
Note: 2. Not yet active.					
Source: City of Mesa. Note all acreage values shown are estimates.					

STATE LAND

On the southwest corner of Greenfield and the Loop 202 is an approximately 80 acre parcel of state land that has two abandoned structures on it today. The State Land Department has expressed a preference for a proposal that would develop the entire parcel (the existing buildings are located adjacent to the intersection and the remaining land is somewhat isolated). In the years since these buildings were developed population growth and the expansion of the Loop 202 appear to have made a substantial change to the highest and best use of this particular parcel. Though the city's General Plan calls for the land to be light industrial, given the visibility and the limited number of full interchange corners available in this part of the city, other uses such as office or higher education may be more appropriate. Though the site does have good visibility, roadway access is limited at best and would have to be addressed in coordination with development of the parcel. The northwest corner of the Greenfield and Loop 202 intersection is an additional 29+ acre State Land parcel that is currently unleased.

**Figure 2 - Falcon Field Employment Center
Business Parks and Key Development Opportunities**

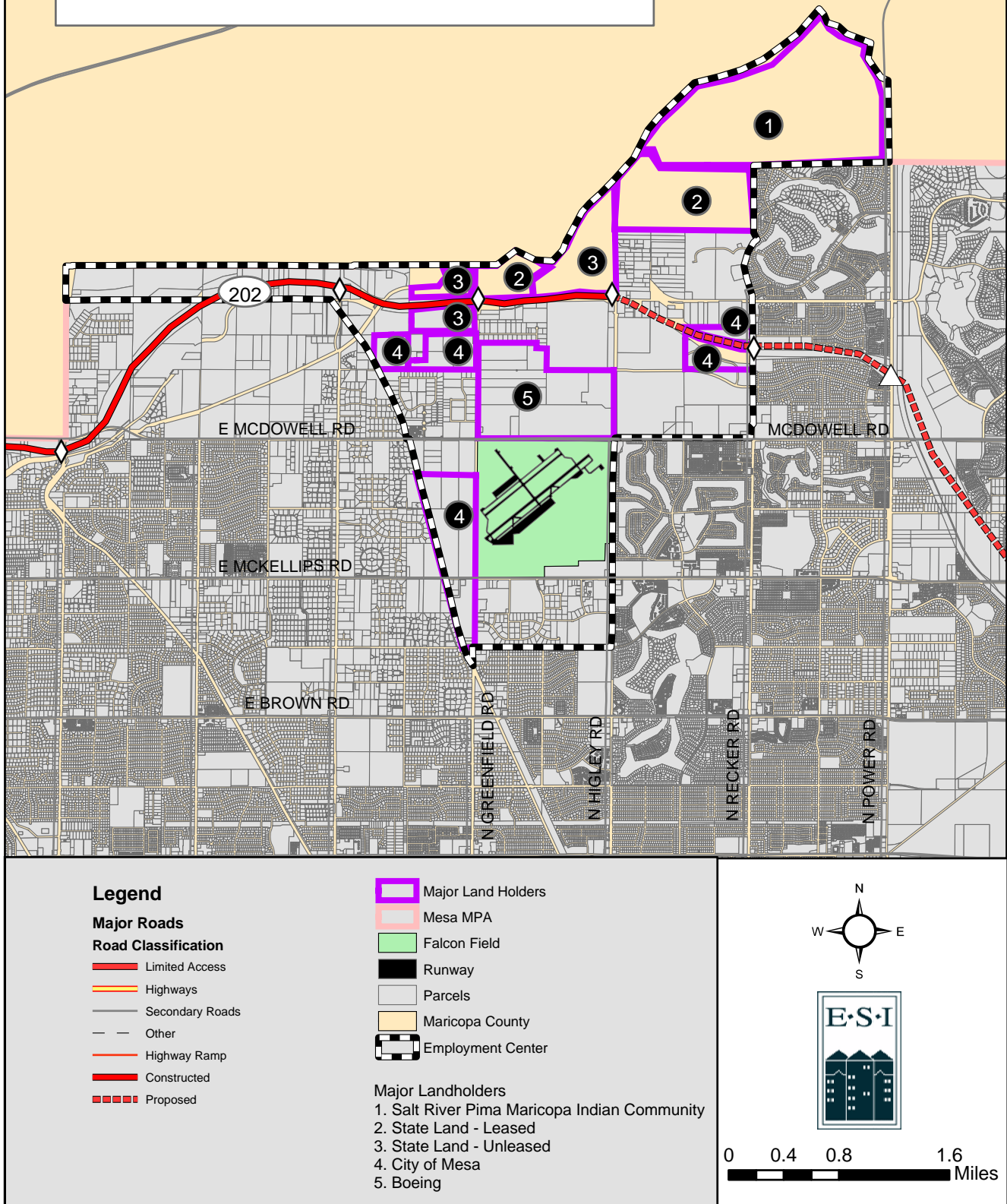


The State Land Department also has substantial land holdings near the northern border of the study area. Talley Defense Systems holds long term leases (expiring in 2027) on a total of approximately 425 acres, leaving 250+ acres available for lease, which are bounded by Higley and Thomas Roads. Future uses for these State Land parcels have been identified in the city's recently adopted General Land Use Plan. This plan calls for employment generating uses such as light and general industrial.

The canals themselves (which form the study area boundaries to the west and north) represent the only FEMA "A" designated 100 year floodplain land in the study area, and the State Land in the study area all falls under the X500 (500 year) floodplain designation. There are no current mineral rights leases active on State Land in the study area.

As shown on Figure 3 the Bureau of Land Management and the Salt River Pima-Maricopa Indian Community are also significant land holders in the region, though no current plans for any of this land have been identified in our research process.

**Figure 3 - Falcon Field Employment Center
Major Landholders**



III. ECONOMIC DEVELOPMENT OPPORTUNITIES

AEROSPACE AND AVIATION FOCUS

Aerospace and aviation represent a key industry cluster for the Falcon Field Employment Center. Anchored by such employers as Boeing, Marsh Aviation, MD Helicopters, and Talley Defense Systems the appeal of this area to the Aerospace and Aviation industry cluster (including buyer and supplier relationships and support services to these sorts of companies) is evident. The Falcon Field Employment Center was the location of more than 5 percent of all aerospace and aviation establishments⁴ and more than 11 percent of employment in this industry cluster in Maricopa County; with 23 establishments and 6,092 employees. Glendale (in the vicinity of Luke Air Force Base) and Phoenix (in and around Sky Harbor Airport) were the only job centers in all of Maricopa County with larger concentrations of aerospace and aviation cluster employment (with total employment of 6,356 and 13,280 respectively).

In looking at the concentration of major employers and suppliers within the Falcon Field Employment Center, a key focus is on helicopters for military applications. According to *Aviation Week & Space Technology*, the forecast for this industry segment is optimistic for “new build” and “remanufacture” programs. The civil helicopter market, on the other hand, is projected to remain relatively flat and is a mere fraction of the military market in terms of dollar value. To safeguard the local economy against a downturn in this industry, it will be important for the city to achieve a diversified balance of industry types.

A targeted industry analysis was performed to identify those industries that pay relatively high wages, are growing faster than the United States and Phoenix-Mesa MSA⁵ averages, and are relatively concentrated in the Phoenix-Mesa MSA. A total of 26 aerospace and aviation related industries were identified for the Falcon Field Employment Center. The details of this analysis are included in Appendix D. All industries in the Aerospace and Aviation cluster are listed in Table 4, with the 9 “best targets” (meeting at least three of the four screening criteria) shown first in **bold**.

⁴ Data from the 2001 Maricopa Association of Governments Major Employer database and reflect establishments with five or more employees only.

⁵ Metropolitan Statistical Area; the Phoenix-Mesa MSA includes Maricopa and Pinal Counties.

Table 4 – Potential Targeted Aerospace and Aviation Industries for Falcon Field Employment Center							
NAICS	NAICS	Employment		Avg Wage	MSA Employment Growth		LQ
Code	Text	1999	2001	2001	99-01#	99-01 %	2001
336414	Guided Missile and Space Vehicle Manufacturing	671	982	\$65,929	311	46.4%	1.49
488190	Other Support Activities for Air Transportation	1,483	2,739	\$38,576	1,256	84.7%	2.93
811219	Other Electronic and Precision Equipment Repair and Maintenance	55	425	\$41,244	370	674.2%	1.42
332439	Other Metal Container Manufacturing	76	436	\$30,321	360	473.1%	1.24
332919	Other Metal Valve and Pipe Fitting Manufacturing	60	64	\$40,812	4	5.9%	0.20
485113	Bus and Other Motor Vehicle Transit Systems	1,170	1,628	\$32,750	458	39.2%	5.07
488111	Air Traffic Control	14	22	\$40,897	8	57.6%	0.34
488999	All Other Support Activities for Transportation	2	13	\$37,297	11	701.9%	0.10

Table 4 – Potential Targeted Aerospace and Aviation Industries for Falcon Field Employment Center							
NAICS	NAICS	Employment		Avg Wage	MSA Employment Growth		LQ
Code	Text	1999	2001	2001	99-01#	99-01 %	2001
532411	Commercial Air, Rail, and Water Transportation Equipment Rental and Leasing	1	13	\$47,968	12	1459.3%	0.10
332911	Industrial Valve Manufacturing	-	-		-		-
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing	6,283	5,457	\$68,115	(826)	-13.2%	2.96
336411	Aircraft Manufacturing	4,646	4,208	\$58,419	(438)	-9.4%	1.43
336412	Aircraft Engine and Engine Parts Manufacturing	9,403	7,255	\$63,683	(2,148)	-22.8%	6.21
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	7,044	3,872	\$50,068	(3,172)	-45.0%	3.21
481212	Nonscheduled Chartered Freight Air Transportation	83	85	\$37,047	2	2.0%	0.77
485320	Limousine Service	132	175	\$19,099	43	32.5%	0.37
332111	Iron and Steel Forging	47	13	\$45,024	(34)	-72.2%	0.04
332112	Nonferrous Forging	3	2	\$48,943	(1)	-40.2%	0.02

Table 4 – Potential Targeted Aerospace and Aviation Industries for Falcon Field Employment Center							
NAICS	NAICS	Employment		Avg Wage	MSA Employment Growth		LQ
Code	Text	1999	2001	2001	99-01#	99-01 %	2001
336415	Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing	133	9	\$58,391	(124)	-93.2%	0.06
481112	Scheduled Freight Air Transportation	6,119	139	\$38,378	(5,980)	-97.7%	0.72
485999	All Other Transit and Ground Passenger Transportation	577	477	\$21,698	(100)	-17.4%	1.95
488119	Other Airport Operations	1,713	820	\$21,419	(893)	-52.1%	1.11
488510	Freight Transportation Arrangement	1,767	1,166	\$39,150	(601)	-34.0%	0.53
621910	Ambulance Services	579	418	\$37,141	(161)	-27.8%	0.33
332510	Hardware Manufacturing	622	37	\$30,156	(585)	-94.1%	0.06
492110	Couriers	7,480	6,480	\$30,048	(1,000)	-13.4%	0.96
Note: Wage data in italics exceed MSA average \$33,936 annual. Employment growth data in bold exceed US average 3.4%. LQ > 1.00 (national average) appear in bold as well. NAICS in bold meet all four criteria (Above average wage, above MSA and US employment growth, and LQ 1.00 or more). One other NAICS code in Aerospace & Aviation cluster (481111 scheduled passenger air transportation) was removed as not appropriate for Falcon Field. Source: IMPLAN, MAG, ESI Corp							

Key site selection criteria for Aerospace and Aviation cluster companies are listed in Table 5. The Falcon Field Employment Center and surrounding area rate well in terms of all of these factors.

Table 5 – Key Aerospace and Aviation Site Selection Criteria	
Key Location Drivers	
Suppliers	Just-in-time manufacturing is a modern standard the importance of which is magnified in the case of this industry with its low volume, high cost final products. Having high quality (often redundant) supply capability is worth the extra expense in savings on warehousing and inventory in this industry.
Skilled Labor	Labor skills and quality are key factors for this industry, but though quality university education in engineering is desired most staff are not hired directly out of college. Thus the attractiveness of the place for residential relocation of national recruiting efforts is important as well.
School Quality	Related to relocation of skilled labor. The labor force that is highly educated and skilled desires quality schools for their children.
International Airport	Access (though not necessarily direct proximity) to international passenger service and shipping are key site selection factors in this industry cluster.
Natural Disasters	Again, low volume, high cost final products are an influence on the industry which values locations where it can avoid process disruptions to the fullest extent possible.

OTHER TARGETED INDUSTRIES

Though aerospace and aviation is the main focus for the Falcon Field Employment Center, our quantitative industry cluster analysis also identified a number of other appropriate industry targets meeting screening criteria of wages, regional concentration and above average regional growth rate. A total of 36 non-aviation industries were identified that met all of the criteria. Again, the analysis performed to develop the list shown on Table 6 is discussed in more detail in Appendix D.

Table 6 – Potential Non-Aviation Industry Targets for Falcon Field Employment Center								
NAICS	NAICS	Employment		Avg Wage	MSA Employment Growth		LQ	
Code	Text	1999	2001	2001	99-01#	99-01 %	2001	
Advanced Business Services								
522293	International Trade Financing	47	108	\$43,330	61	131.9%	1.02	
522310	Mortgage and Nonmortgage Loan Brokers	1,055	1,455	\$57,347	400	37.9%	1.79	
522390	Other Activities Related to Credit Intermediation	10,157	13,201	\$47,330	3,044	30.0%	11.68	
523120	Securities Brokerage	4,636	6,674	\$60,582	2,038	44.0%	1.52	
533110	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	1,448	1,749	\$47,167	301	20.8%	4.83	
541214	Payroll Services	2,796	3,237	\$35,164	441	15.8%	1.66	
541330	Engineering Services	8,780	11,727	\$58,829	2,947	33.6%	1.19	
541612	Human Resources and Executive Search Consulting Services	3,015	3,595	\$50,534	580	19.2%	2.56	
541614	Process, Physical Distribution, and Logistics Consulting Services	645	1,035	\$42,447	390	60.5%	1.36	
541830	Media Buying Agencies	203	350	\$37,217	147	72.8%	3.51	

Table 6 – Potential Non-Aviation Industry Targets for Falcon Field Employment Center							
NAICS	NAICS	Employment		Avg Wage	MSA Employment Growth		LQ
Code	Text	1999	2001	2001	99-01#	99-01 %	2001
541850	Display Advertising	938	1,166	\$48,441	228	24.3%	3.34
541990	All Other Professional, Scientific, and Technical Services	515	1,211	\$34,689	696	135.1%	2.88
561210	Facilities Support Services	2,110	2,242	\$34,332	132	6.3%	1.84
561410	Document Preparation Services	491	1,025	\$41,697	534	108.7%	2.17
711510	Independent Artists, Writers, and Performers	196	580	\$40,946	384	196.2%	1.27
Agriculture and Food Processing							
312111	Soft Drink Manufacturing	2,380	2,537	\$34,363	157	6.6%	2.32
Bioindustry							
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing	502	1,628	\$60,203	1,126	224.2%	2.45
Education Services							
611430	Professional and Management Development Training	350	565	\$48,316	215	61.3%	1.02

Table 6 – Potential Non-Aviation Industry Targets for Falcon Field Employment Center							
NAICS	NAICS	Employment		Avg Wage	MSA Employment Growth		LQ
Code	Text	1999	2001	2001	99-01#	99-01 %	2001
611699	All Other Miscellaneous Schools and Instruction	790	860	\$36,047	70	8.8%	2.53
Health Services							
621399	Offices of All Other Miscellaneous Health Practitioners	403	454	\$34,251	51	12.7%	1.32
621491	HMO Medical Centers	965	3,514	\$47,317	2,549	264.2%	4.45
621493	Freestanding Ambulatory Surgical and Emergency Centers	703	953	\$54,467	250	35.6%	1.42
High Tech Electronics							
334417	Electronic Connector Manufacturing	1,090	1,305	\$39,302	215	19.8%	4.51
Other Basic Industries							
322233	Stationery, Tablet, and Related Product Manufacturing	6	96	\$35,060	90	1623.4%	1.21
332912	Fluid Power Valve and Hose Fitting Manufacturing	423	2,319	\$59,939	1,896	447.8%	4.16

Table 6 – Potential Non-Aviation Industry Targets for Falcon Field Employment Center							
NAICS	NAICS	Employment		Avg Wage	MSA Employment Growth		LQ
Code	Text	1999	2001	2001	99-01#	99-01 %	2001
333210	Sawmill and Woodworking Machinery Manufacturing	185	490	\$40,252	305	165.0%	4.22
333295	Semiconductor Machinery Manufacturing	938	1,073	\$66,444	135	14.4%	3.78
333311	Automatic Vending Machine Manufacturing	69	186	\$34,096	117	169.3%	1.85
333512	Machine Tool (Metal Cutting Types) Manufacturing	77	460	\$34,301	383	493.9%	1.01
333518	Other Metalworking Machinery Manufacturing	85	219	\$47,732	134	158.6%	1.55
335129	Other Lighting Equipment Manufacturing	42	284	\$40,645	242	570.2%	1.75
336399	All Other Motor Vehicle Parts Manufacturing	1,678	2,743	\$37,617	1,065	63.4%	1.33
339920	Sporting and Athletic Goods Manufacturing	1,254	1,324	\$39,732	70	5.5%	1.64
339932	Game, Toy, and Children's Vehicle Manufacturing	266	339	\$47,008	73	27.3%	1.22

Table 6 – Potential Non-Aviation Industry Targets for Falcon Field Employment Center							
NAICS	NAICS	Employment		Avg Wage	MSA Employment Growth		LQ
Code	Text	1999	2001	2001	99-01#	99-01 %	2001
322233	Stationery, Tablet, and Related Product Manufacturing	6	96	\$35,060	90	1623.4%	1.21
Other Supplier Industries							
323119	Other Commercial Printing	515	691	\$34,288	176	34.1%	1.10
Note: All targets listed on this table exceeded all four screening criteria (average wage in the Phoenix-Mesa MSA of \$33,936 or more, above MSA and US employment growth, and LQ 1.00 or more). NAICS in consumer industries were removed from this list. Source: IMPLAN, MAG, ESI Corp							

Due to their specific importance in Mesa the education and advanced business services clusters merit some more detailed discussion. It can be argued that to some extent both of these industry clusters are local serving, but they still serve niches of specific policy importance to the City. Mesa has long been known as one of the premier cities for education in the metro area, including highly regarded primary and secondary education, as well as innovative post-secondary programs and institutions specifically targeted at 21st century needs (such as ASU East and the technology MBA program). Locating post secondary educational opportunities in and around the Falcon Field Employment Center can be used to integrate skills training with area businesses to the benefit of all involved in the form of a better prepared entry level workforce and easy integration of continuing education opportunities with local employees; serving to increase tenure and productivity. Professional and management development training in particular was one of the industries identified as a good target for Mesa. Some of the site criteria of importance in this industry are listed on Table 7.

Table 7 – Key Site Selection Criteria for Professional and Management Development Training	
Key Location Drivers	
Access to Market (local)	Institutions with a focus on periodic coursework (i.e. University of Phoenix) will desire proximity to a large pool of professional workers in the market for skills upgrades.
Locational Draw	Institutions that perform episodic training (e.g. continuing education seminars or retreats) require access to a national and / or international airport in the market area and a desirable destination location (tourism opportunities / attractions within reasonable proximity).
Market Growth	Success breeds success in professional development training. Institutions focus on quickly developing a positive reputation and on being able to capture a large share of new demand as a result. Arrangements with a few large employers in the start up stage can support this need.

The Falcon Field Employment Center (particularly as the Loop 202 extension enhances access to Sky Harbor Airport) is well positioned in light of all these criteria.

Advanced business services is a diverse industry cluster with activities (among specific identified targets) ranging from outsourced processes (such as payroll or advertising services) to periodic contract activities (such as engineering services or

logistics consulting). Business services generally share a number of key criteria specifically related to business growth in their service area. In general, growing companies are much more likely to need their services; both for the specific reason of expansionary growing pains and due to an urgency to concentrate on core competencies. The Phoenix-Mesa MSA in general, and the Falcon Field Employment Center in particular, represent rapidly growing regional markets for these types of firms. To the extent that these firms are not specifically serving the metropolitan area in which they are located (a fairly common phenomena) the local cost structure and ease of air transportation become important factors to consider. The Falcon Field area also fares well under these considerations.

ARIZONA TECHNOLOGY COUNCIL INITIATIVES

Technology companies represent a key theme in business attraction and development efforts that transcends industry clusters themselves. Modern economic development is focused on two key factors, the development of the so called “knowledge workers” (technology workforce) and providing the best possible environment for technology development in the region. Mesa has acknowledged this in its economic development strategic planning efforts, seeking to align itself with firms producing “21st century products.”

The state of Arizona is in the process of implementing a number of changes and new initiatives aimed at enhancing technology development in the state. These include:

- Commercialization of university research; the Governor has signed a bill allowing universities to accept an equity stake in new ventures as payment for their participation. It will also require that voters amend the state’s constitution for the new law to take effect.
- Efforts to improve relationships with policy makers, including establishing an office for lobbying the Federal government in Washington D.C.
- Revisions to various tax laws impacting technology companies; including changing the weights of the factors used in calculating state corporate income tax liability, and revisions to the state’s research and development and information technology training tax credit programs.
- Developing a “fund of funds” where various sources of capital could be pooled to share the risk of venture capital technology investing.

Another recommendation of the council is that it is important for local implementers to understand that industry alliances are keys to successful economic development. These could include public – private partnerships as well as private associations of buyers and suppliers that work together to jointly address common issues. These kinds of associations can have a substantive role in shaping state policy (such as the recommended changes in tax laws described above), as well as having more localized influence; for example in defining specific skill sets for industry new entrants and working with the community college system and universities to align curriculum with skill sets in short supply in the industry.

To the extent that Mesa is able to tap into and leverage these efforts and initiatives it will be possible to achieve both greater general success and some enhancements to business conditions that would not have been possible alone (alterations to state tax laws for example.)

IV. AIRPORT MASTER PLAN & PROPOSED LAND USE

BUSINESS AVIATION AND ECONOMIC DEVELOPMENT

The role of business aviation as it relates to economic development was one particular issue that we found many people had extreme and divergent opinions about during our study process. Has competition and low prices in scheduled passenger travel rendered the corporate jet essentially obsolete; or have changes such as time and security costs resultant from anti-terrorism measures made corporate owned planes a better value than ever?

A recent⁶ research report by Anderson Consulting provides a look at this aspect of the aviation industry. More than 300 companies in 14 different industries were analyzed for various financial measures (such as cumulative return on investment, asset efficiency ratio, and earnings before interest and tax) comparing business aircraft operators and non-operators within each industry. Andersen also analyzed “adopters” (companies that began operating business aircraft during their study period). Key findings firmly support the supposition that companies operating aircraft see benefits which serve to increase their profits.

- Operators earned 141 percent more in cumulative returns than non-operators and experienced a lesser (three times lower) decrease in Asset Efficiency.
- New operators returned 343 percent to their shareholders between 1995 and 1999 as compared to 177 percent by non-operators.
- In addition to net financial benefits other positive impacts of operating aircraft included employee time savings and productivity while in transit, protection of intellectual property, benefits to supply chain management, and charter revenues (via leasing the plane when not in use by the company).

FALCON FIELD

Since the above referenced report was produced *before* the terrorist attacks of September 11th, it is reasonable to infer that this analysis *understates* the benefits of corporate plane ownership. While this is a good sign for airports focused on corporate aircraft basing and / or travel, the extent of the positive impact for Falcon Field is less certain. The runway length is an inhibiting factor in terms of safety for accommodating some corporate aircraft. Businesses that need a longer runway would be precluded from locating at Falcon Field. The City is not planning on

⁶ “Business Aviation in today’s economy – A shareholder value perspective” was produced Spring 2001, before the terrorist attacks of September 11th by Andersen Consulting.

extending the runway, and as a result of this policy could limit the Falcon Field area from achieving its full potential as an employment center.

Another potential barrier, though not insurmountable, is the runway construction (which is engineered for lighter planes) and proximity of the secondary runway to the primary one. The worst case scenario for regularly operating aircraft heavier than the runway was designed to handle (Falcon Field's main runway is designed to accommodate 38,000 pounds single wheel or 60,000 pounds dual wheel⁷) is failure of the pavement. At a minimum heavier aircraft will increase the maintenance costs. Similarly, it is logistically possible to temporarily not use the secondary runway to accommodate wider wingspan planes on the main runway as needed.

A final constraint to locating a business on Falcon Field is the time consuming development process. Executing a lease is more difficult due to the additional layer of bureaucracy introduced by FAA rules and guidelines. An added complexity is the internal City lease process and the potential that the lease terms could prevent a business from getting a loan.

LEASING PROCESS

Interviews were conducted with the Falcon Field Airport Director and staff to determine the steps that were required to negotiate a lease agreement for either land or a hangar. These interviews revealed a four-step process as shown in Chart 1. This four-step process is detailed below.

STEP 1: PROSPECTIVE TENANT INQUIRES ABOUT A LEASE

The first step for a prospective tenant is to contact Falcon Field staff regarding the availability of land or hangar space.

If land or hangar space is available, Falcon Field staff determines the prospective tenant's anticipated use. Uses at Falcon Field are limited to regulations imposed by the Federal Aviation Administration (FAA) as one of the conditions for receiving grants. As such, the leases include a set of use provisions. These use provisions depend on the anticipated use. The anticipated uses include office/hangar facility, aviation commercial, and non-aviation.

STEP 2: FALCON FIELD OFFICIALS NEGOTIATE LEASE TERMS

Once the anticipated use is acceptable, Falcon Field officials provide the tenant a "Master Tenant Lease." This lease includes boilerplate lease provisions and the associated use provisions related to the anticipated use of the property. Also

⁷ Technically the airport runway could accommodate up to 90,000 dual wheel tandem, but aircraft of that particular class are generally much heavier anyhow.

included are the proposed lease rates, duration of the lease, and renewal options. This master lease template has been approved by the City Attorney's Office.

Lease rates: Falcon Field officials maintain a rate schedule for its hangar space. This rate schedule details the lease rates associated with the type of hangar under consideration. On the other hand, there is no set rate schedule for lease rates for land. Lease rates for land are initially set by Falcon Field officials and staff with the Office of Economic Development. The lease rate can be first set depending on the location and anticipated use of the parcel and include rent adjustments based on the CPI. Non-aviation uses, such as a restaurant, will be charged a higher rate than aviation uses. This policy was implemented to be consistent with the FAA's desire to foster aviation uses at Falcon Field. Beyond these considerations, lease rates can vary depending on negotiations with the prospective tenant.

Duration of lease: Leases for hangars or land are typically negotiated for a 25-year term. The standard duration of a lease is 25 years because most lending institutions are unwilling to consider financing for lease of any shorter term. Falcon Field officials permit the sublet of leased space as long as the sub-tenants abide by the provisions of the master lease.

Renewal options: The standard lease includes two, 10-year options to renew the lease at the discretion of the city.

After reviewing and/or modifying the lease, it is submitted to Falcon Field officials for approval. If the tenant's modifications are unacceptable, Falcon Field officials make modifications and return the lease to the tenant for review. This negotiating process continues until both the tenant and Falcon Field officials agree on the terms of the lease.

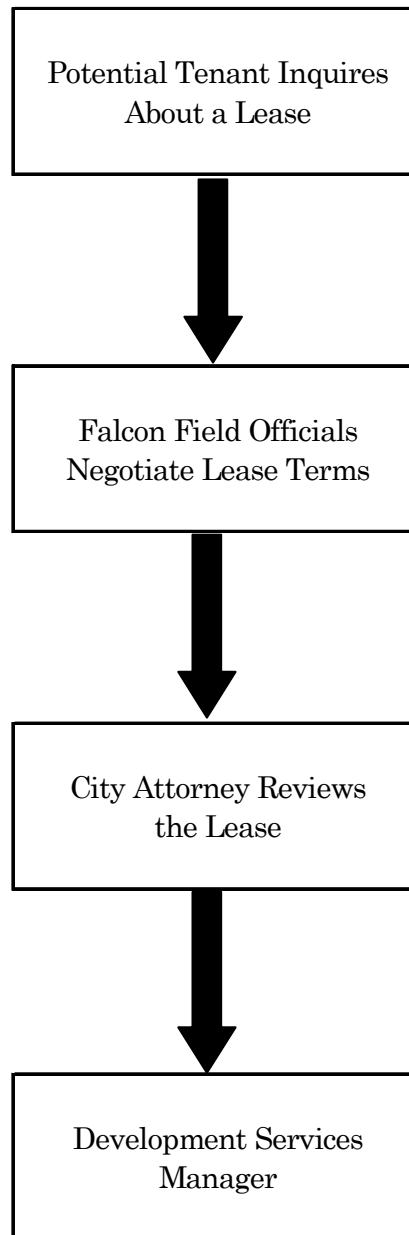
STEP 3: CITY ATTORNEY'S OFFICE REVIEWS THE LEASE

The lease is sent to the City Attorney's office for review after Falcon Field officials have accepted the lease. The City Attorney's office reviews the lease for legal issues. If the City Attorney's office finds problems with the language of the lease, modifications to the lease will be made to correct these problems. The revised lease will be returned to Falcon Field officials. Falcon Field officials will then forward the lease to the tenant for review. Once the tenant has either approved the revisions to the lease or requested additional modifications, Falcon Field officials submit the lease to the City Attorney's office for review. This process will continue until the City Attorney's office approves the lease.

STEP 4: APPROVAL OF THE LEASE

Upon receiving approval from the City Attorney's office, a typical lease is approved by the Development Services Manager. Most leases that reach this office are in their final form. The Development Services Manager authorizes leases for the City.

Chart 1
Lease Negotiation Process
Falcon Field Airport



Source: Interviews with Falcon Field Airport Director
and Development Services staff.

TIMELINE OF THE LEASE NEGOTIATION PROCESS

Interviews conducted with Falcon Field Airport staff indicated there are several factors that influence the processing time of a lease. Steps 1 and 2 of the leasing processing involve determining the prospective tenant's anticipated use and negotiating on the terms of the lease. These steps result in the prospective tenant and Falcon Field staff arriving at a mutually agreed upon lease. The total processing time varies between first contact with Falcon Field staff and reaching agreement on the terms of the lease. According to Falcon Field staff, the processing time during these steps averages 30 days. In addition, depending on work load, another 30 days is required for approval from the City Attorney's office and the Development Services office. Overall, the lease negotiation process typically takes a minimum of 60 days.

T-HANGAR MARKET COMPARISONS

FALCON FIELD T HANGARS

Currently, there are 412 hangars at Falcon Field Airport (Table 8). These airport-owned hangars are leased to aviation users. Falcon Field offers four types of hangars ranging in size from 922 square feet to 3,300 square feet. There are 363 small T hangars (922 sf), 39 large T hangars (1,658 sf), 7 small executive hangars (2,345 sf) , and 3 large executive hangars (3,300 sf).

Table 8 - Inventory of Hangars and Current Lease Rates at Falcon Field Airport				
Type of Hangar	Number of Hangars	Size (sq ft)	Monthly Lease Rate¹	Lease Rate (psf)
Small T-Hangars (Regular)	363	922	\$170	\$0.18
Large T-Hangar (Large)	39	1,658	\$287	\$0.17
Small Executive Hangar (X-Large)	7	2,345	\$445	\$0.19
Large Executive Hangar (XX-Large)	3	3,300	\$858	\$0.26
Total	412			
Note: 1. Latest lease rates as of August 1, 2003 Source: Falcon Field Airport				

According to Falcon Field officials, all 412 hangars are currently leased. Approximately 381 companies and / or individuals are on the waiting list for hangars and tie downs.

T-HANGARS AT COMPETING AIRPORTS

There are five airports in metro Phoenix that lease hangar space similar to Falcon Field. These airports include Deer Valley Airport, Goodyear Airport, Glendale Airport, Chandler Municipal Airport, and Scottsdale Airport and their location in the Phoenix Metro Area is shown in Figure 4.

According to interviews conducted with airport personnel, Deer Valley Airport has the most T-hangars among the airports noted in Table 9. There are about 768 T-hangars at Deer Valley Airport. By comparison, Falcon Field currently has 402 T-hangars (excluding executive hangars). In addition, there are some 147 T-hangars at Goodyear Airport, 200 at Glendale Airport, 120 at Chandler Municipal Airport, and 10 at Scottsdale Airport. It should be noted that Scottsdale Airport consists mainly of the runway. Most of the adjacent property is privately owned.

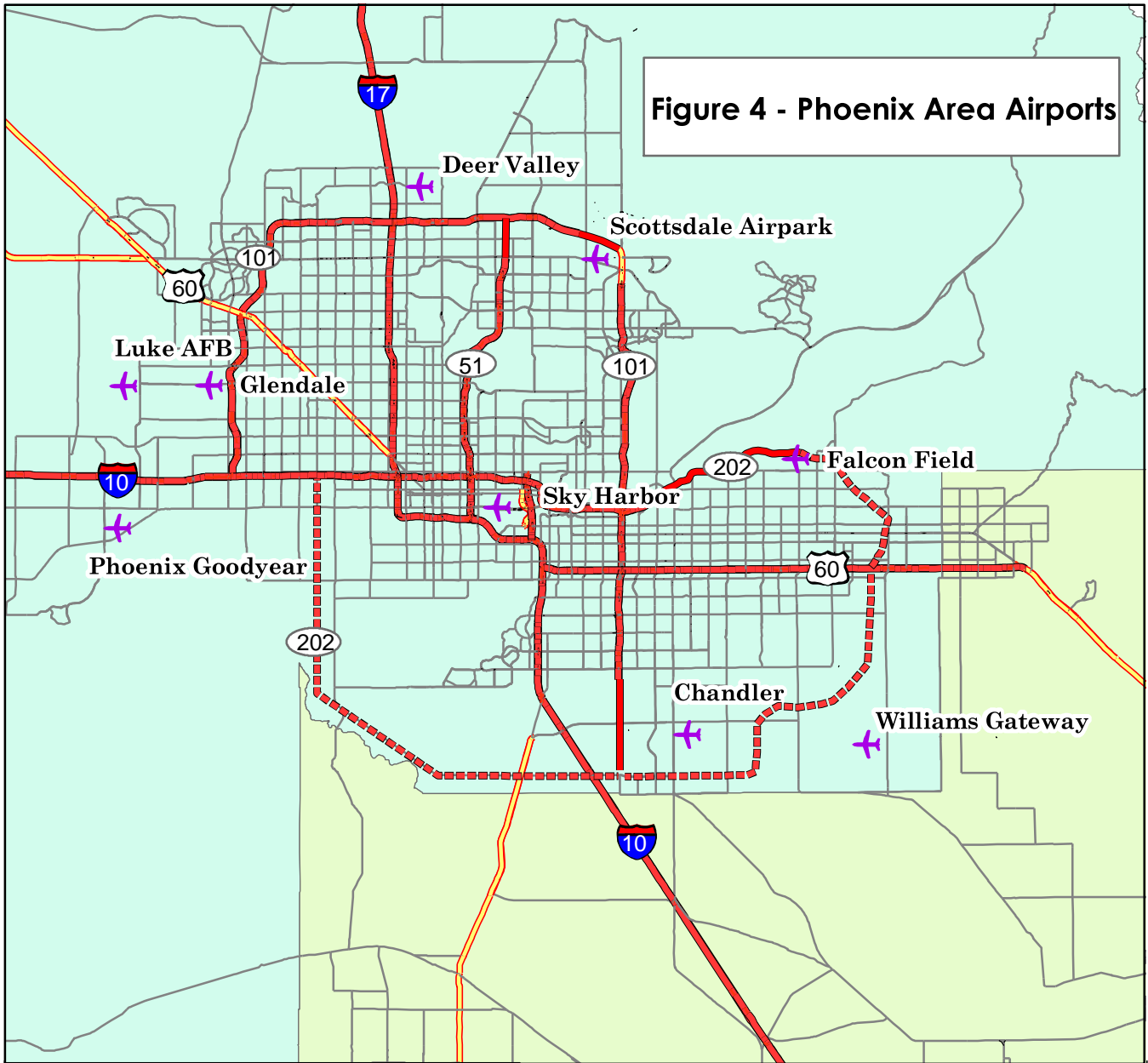
Interviews were conducted with airport personnel at each of the airports during January 2004. These interviews revealed that no T-hangars were available at any of the airports above. Indeed, each airport maintains a waiting list and waiting times range from six months at the Glendale and Goodyear Airports to as long as eight years at Chandler Airport. By comparison, the typical waiting time for Falcon Field Airport is approximately seven years.

MONTHLY LEASE RATES

According to Falcon Field Airport personnel, the latest lease rates for T-hangars were set in August 2003. Lease rates are set for each type of hangar identified in Table 8 on the previous page. In addition, telephone interviews were conducted with airport personnel at each of the five competing airports to determine the current lease rates for T hangars.

The monthly lease rate for small T-hangars at Falcon Field is currently \$170. This rate is higher than the rates at four of the five competing airports. As shown in Table 9, monthly lease rates for small T-hangars range from \$125 at the Scottsdale Airport to \$235 at the Glendale Airport. Indeed, the Glendale Airport is the only airport that has a lease rate higher than that charged at Falcon Field for small T-hangars, however all of the Glendale airport hangars are privately owned.

Figure 4 - Phoenix Area Airports



Legend

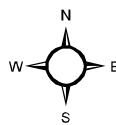
Major Roads

Road Classification

- Limited Access
- Highways
- Secondary Roads
- - Other
- Highway Ramp
- Constructed
- - - - Proposed

- Pinal County
- Maricopa County
- City Boundaries

- ✈ Airfield



0 2.5 5 10 15 20 Miles

The monthly lease rate for large T-hangars at Falcon Field is currently \$287. This rate is higher than the rates at three of the five competing airports. As shown in Table 9, monthly lease rates for large T-hangars range from \$150 at the Scottsdale Airport to \$295 at the Glendale Airport. Indeed, the Glendale Airport and Chandler Municipal Airport have lease rates higher than that charged at Falcon Field for large T-hangars.

Table 9 – Current Lease Rates for T-hangars at Select Metro Phoenix Airports						
Airport ¹	Glendale Airport	Chandler Municipal Airport	Falcon Field Airport	Deer Valley Airport	Goodyear Airport	Scottsdale Airport
Total T-Hangars ²	200	120	402	768	147	10
Current Availability	0	0	0	0	0	0
Waiting time on waiting list	6 mo	8 yr	7 yrs	1 to 2 yrs	6 mo - 1 yr	N/A ³
Monthly Lease Rate						
Small T-Hangar	\$235	\$165	\$170	\$166	\$125	\$150
Large T-Hangar	\$295	\$290	\$287	\$240	\$162	\$150
Note: 1. Excluding Phoenix Sky Harbor and Williams Gateway Airport Note: 2. Total hangars owned by the Airport excluding corporate/executive hangars Note: 3. The typical waiting time for T-hangars at the Scottsdale Airport was reported as substantial. No further detail is available. Source: Interviews conducted with Airport personnel						

Though prices are roughly similar for the different airports in the market, the long waiting lists are indicative of a price below the market rate. Currently there are no T-hangars at the Williams Gateway Airport. Adding T-hangars would in the short run reduce the demand for T-hangar space at Falcon Field, but as the aircraft owner population continues to grow the demand would soon outpace the supply. It is likely that T-hangar rates could be raised at any or all of these airports and hangar revenues increased. Anecdotal evidence indicates that political opposition to raising hangar lease rates is strong throughout the metro area.

PROPOSED LAND PLAN FOR FALCON FIELD

A proposed land plan for Falcon Field was developed, taking into account the needs for both aviation and non-aviation uses on the airport as well as the typical land needs of companies in the industries most likely to be attracted to **the airport itself**.

For the aerospace and aviation targets identified in Table 4 (in the Economic Development Opportunities chapter Aerospace and Aviation section), an analysis of Census County Business Patterns data for the United States and the Phoenix-Mesa

MSA was performed to identify the most typical “employment class”⁸ sizes of each of the aerospace and aviation industry targets.

As a basis for comparison it is interesting to note that among all companies in the scope of county business patterns data collection⁹ in the United States, less than one percent (0.7%) of all establishments have 250 or more employees. In fact, less than 15 percent of establishments have 20 or more employees. Thus as a whole the “pool” of large companies in need of large sites is small indeed.

Many aerospace and aviation related companies “beat” this average however. Of the 26 NAICS Codes evaluated as parts of the Aerospace and Aviation Cluster, two in the United States and three in the Phoenix-Mesa MSA had modal (most common value in a distribution) employment class sizes of 100 to 249 (including one tie for most common value in each geography).

With this understanding of typical employment ranges of establishments in the aerospace and aviation industry, we were able to combine this information with a range of assumptions concerning square feet per employee and a floor to area ratio of 0.33 to calculate typical building square footage and typical parcel size (respectively).

Table 10 details this analysis for three potential targets:

1. Best Aviation Targets – industries that met three or four of the screening criteria used in the targeted industry analysis
2. All Aerospace and Aviation – an overall average of all industries in the cluster
3. Hypothetical 100 Employee Establishment – a calculation presented for comparison purposes to show the estimated land demand for an establishment with 100 employees.

It is important to note that it is not atypical for a company to locate on land somewhat larger than their current needs to accommodate potential future expansion.

⁸ The Census groups companies in ranges of employment class size, such as 1-4 employees, 5-9 employees; with the ranges getting broader at larger employment sizes (500 to 999 is the largest class size defined with an upper bound).

⁹ Generally the data excludes railroad workers and most government employees. See <http://www.census.gov/epcd/cbp/view/cbpfaq.html#Q4> for a complete description of the universe of the data set.

Table 10 – Estimated Typical Building Square Footage and Parcel Sizes for Aerospace and Aviation Industry Targets			
	Range of Estimate ¹		
	Low	Middle	High
Estimated Square Feet (of building) Per Establishment			
Best Aviation Targets ²	10,000	16,000	26,000
All Aerospace and Aviation	18,000	31,000	51,000
Hypothetical 100 Employee Establishment	35,000	61,000	100,000
Typical Parcel Size³			
Best Aviation Targets ²	0.70	1.11	1.81
All Aerospace and Aviation	1.25	2.16	3.55
Hypothetical 100 Employee Establishment	2.43	4.24	6.96
Note: 1. Low estimate assumes 350 square feet per employee, middle estimate assumes 610 square feet per employee, and high estimate assumes 1,000 square feet per employee. Note: 2. "Best Aviation Targets" meet 3 or more of the 4 screening criteria used in the industry cluster analysis. Best targets calculation adjusted upward by a factor of 2.5 and rounded upwards to reflect specific concentration of city marketing efforts on these particular industries. Note 3. At FAR of .33. Source: Previous Tables, MAG, Urban Land Institute, ESI Corp			

As noted elsewhere in this report, a minority of all businesses actually require direct access to a taxiway. As such, those that don't require taxiway access will find the additional complexity involved in dealing with FAA regulations and the city as a land lease holder not worth any small benefit derived from being located on the airport itself. Thus, of all industry targets identified we used only aviation related businesses in determining appropriate parcel sizes. Given the many improved industrial and business parks in the employment center it would not be surprising if Falcon Field itself were to capture only a very small share of new development in the near term. Fortunately, cities are generally in a position (more so than the typical private developer) to set aside space for the occasional "big fish" company looking at the area.

Hangars support the airport in many ways as well. They provide a direct source of revenues (first to service the debt incurred in their development, but eventually as a source of positive cash flow) as well as an additional opportunity to house more aircraft; which in turn leads to greater fuel surcharge revenues and other sales tax activity in the region.

Currently there are four remaining sizeable undeveloped areas within the square mile comprising the Falcon Field Airport (including privately held land bordering the southeast corner of the airport).

McDOWELL AND GREENFIELD

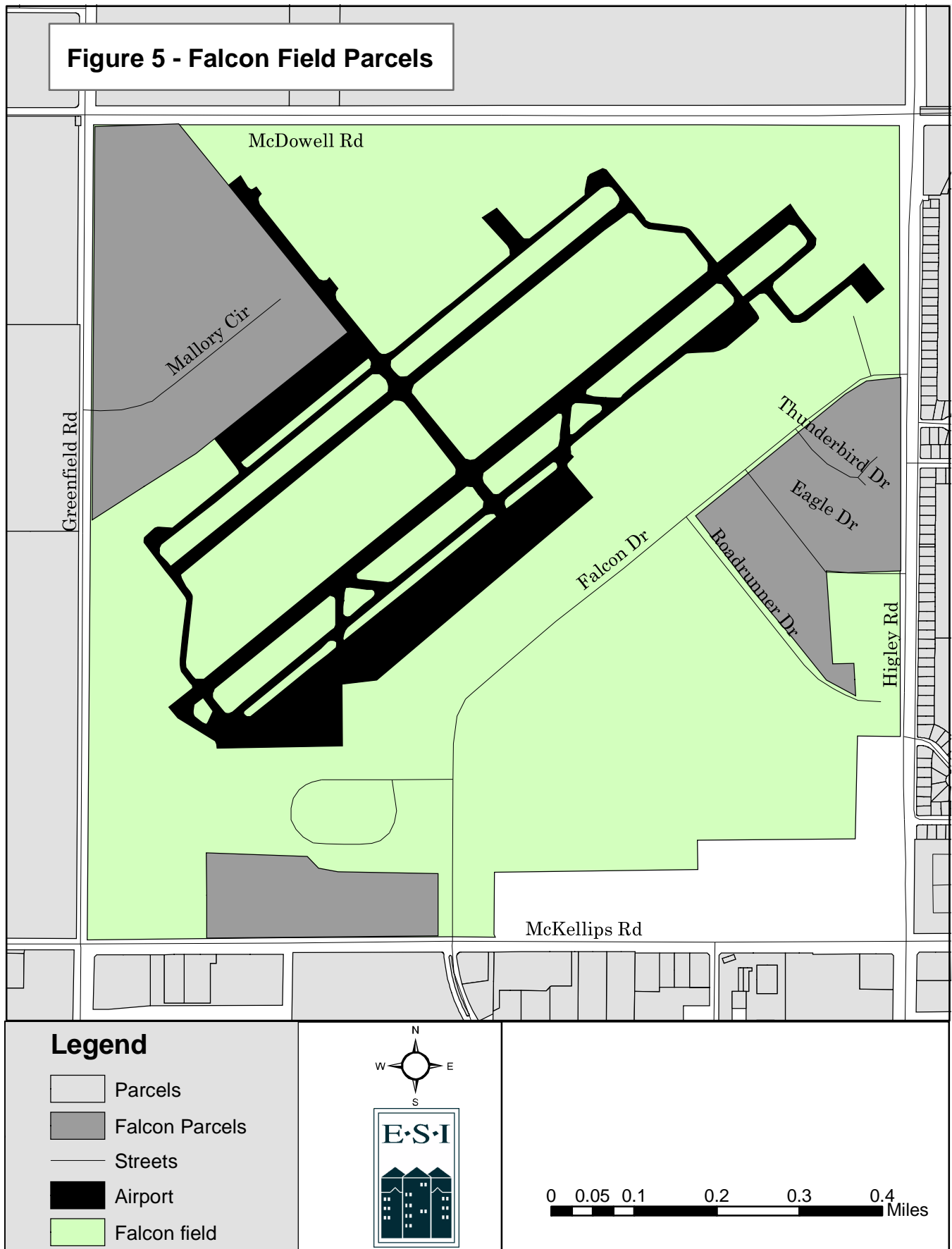
The northwest quadrant of the airport (beginning at the McDowell and Greenfield intersection) has taxiway access and represents a potentially valuable and flexible area for future development on the airport. This area has enough space to include multiple employment generating development opportunities of various sizes as well as additional hangar development.

By leasing land north and south of Mallory Circle first, the city will be able to maintain the opportunity to locate a large user at the southeast corner of McDowell and Greenfield Roads, when and if it presents itself while acknowledging the reality that the majority of the opportunities will be made up of smaller companies (2 to 5 acre parcels).

We also recommend that the city set aside land in this part of the airport for executive hangar development. This will put the city in a position to take advantage of current market opportunities, provide easy executive hangar access off of Mallory Circle and create a relatively attractive frontage for Greenfield Road, which could address negative opinions about airport appearance. Designating this land for executive hangars, but taking RFPs for a private developer to build them would serve multiple advantages for the city.

1. Tenant improvements for quality executive hangars can be very expensive. The up front costs to create a product that would be attractive to the types of high end users desired by the city could be prohibitive (given city political constraints on rates) and / or impossible to cover using grant funding.
2. Having private hangars active on Falcon Field would give persons looking to house planes an alternative to the “rationing by waiting” system and will provide a more accurate barometer of market price.
3. Since improvements revert to the city at the end of the lease, there is a limited downside to allowing private sector hangar development on the airport. A worst case scenario, in the event of default, has the city taking ownership of the hangars in the future, marketing them and generating additional revenues from them at that time (after debt service has been addressed hangars generate cash flow through the remainder of their useful life).

Figure 5 - Falcon Field Parcels



HIGLEY AND FALCON DRIVE

On the east side of the airport located west of Higley Road and south of Falcon Drive is approximately 20 acres of land currently without taxiway access. This location is clearly a logical one for any non-aviation uses that need to be accommodated on the airport. Further, this location would appear to be a logical one for a future business class hotel (depending on what proposals are made in the southwest on Falcon Field and activity at other planned hotel sites in the employment center area) or other commercial, or restaurant activity.

MCKELLIPS AND FALCON DRIVE

In the southwest quadrant of the airport (north of McKellips and west of Falcon Drive) is a 14.15 acre undeveloped parcel. The city is currently evaluating multiple proposals for this land that were received as a result of an RFP process. Given the success of Thunderbird Plaza office and hangar combination development, and the findings of the Andersen study on the value of operating corporate aircraft to businesses today (discussed earlier in this chapter) a similar use would appear logical. The city must also consider guarantees that proposed developments will be built out as planned by including such terms in the lease document, similar to zoning stipulations (i.e. zoning is granted contingent upon development taking place within a specified period of time) and other issues such as job creation and likely wages in evaluation of the competing proposals.

HIGLEY AND MCKELLIPS

Vacant land located at the northwest corner of Higley and McKellips Roads is privately held today. Though to date the city has been unsuccessful in efforts to purchase this property for airport uses, it is considered in airport master planning efforts. Additional T-hangars would appear to be a logical and appropriate use for this land provided it can be acquired at a price which would allow T-hangar development from a financial standpoint. Alternatively the city could consider allowing the property owner future mixed use/employment given the location as a major corner in this part of the city. The latter would also address airport appearance concerns by providing a visual buffer on this side of the airport.

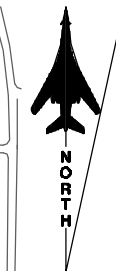
Exhibit 1 shows the proposed land use plan for Falcon Field Airport.

ON-AIRPORT LAND USE LEGEND

277 ACRES	AIRFIELD OPERATIONS (RUNWAYS, TAXIWAYS, RUNWAY PROTECTION ZONES, SETBACKS, ETC.)	110 ACRES	GENERAL AVIATION (FIXED BASE OPERATIONS, SPECIALTY SHOPS, EXECUTIVE HANGARS, TIEDOWNS, ETC.)
93 ACRES	AVIATION RELATED REVENUE SUPPORT (AIRCRAFT MANUFACTURING, AVIATION MUSEUMS, ETC.)	191 ACRES	NON-AVIATION REVENUE SUPPORT (OFFICES, WAREHOUSE, HOTEL, RETAIL, ETC.)
8 ACRES	AIRPORT SUPPORT (NAVIGATIONAL AIDS, MAINTENANCE FACILITIES, ETC.)	9 ACRES	PUBLIC (PARKS, PUBLIC SAFETY, FEDERAL FACILITIES, UTILITIES, ETC.)
33 ACRES	AVIATION OR NON-AVIATION REVENUE SUPPORT	64 ACRES	AIRCRAFT HANGARS

LEGEND		DESCRIPTION
EXISTING	ULTIMATE	AIRPORT PROPERTY LINE
		AIRPORT REFERENCE POINT (ARP)
		AIRPORT ROTATING BEACON
		AVIATION EASEMENT (if applicable)
		BUILDING CONSTRUCTION
		BUILDING RESTRICTION LINE (BRL)
		DRAINAGE
		FACILITY ABANDONMENT
		FACILITY CONSTRUCTION
		FENCING (See Sheet 9 of 9)
		NAVIGATIONAL AID INSTALLATION
		RUNWAY END IDENTIFICATION LIGHTS (REIL)
		RUNWAY THRESHOLD LIGHTS
		SECTION CORNER
		SEGMENTED CIRCLE/WIND INDICATOR
		TOPOGRAPHIC CONTOURS
		UNDERPASS
		WIND INDICATOR (Lighted)

BUILDINGS/FACILITIES		DESCRIPTION	ELEVATION
EXISTING	ULTIMATE		
1	--	ADMINISTRATION/TERMINAL BUILDING	
2	--	AIR TRAFFIC CONTROL TOWER (ATCT)	FLOOR 1433'
3	--	AIRPORT RESCUE and FIREFIGHTING (ARFF)/MESA PD	
4	--	MESA POLICE DEPARTMENT	
5	(5)	FIXED BASE OPERATION HANGAR (Tenant)	
6	--	CONVENTIONAL HANGAR (Tenant)	
7	(7)	T- HANGAR	
8	--	CORPORATE HANGAR (Tenant)	
9	--	UNDERGROUND FUEL STORAGE TANKS	
10	--	FUEL FACILITY (UNDERGROUND TANKS)	
11	--	COVERED TIEDOWNS	
12	(12)	HELICOPTER PADO (PUBLIC)	
13	--	HELICOPTER PADO (PRIVATE)	
14	--	THUNDERBIRD EXECUTIVE PLAZA (OFFICE/HANGAR SPACE)	
15	--	WASH RACK	
	(16)	AUTOMATIC SURFACE OBSERVATION SYSTEM (ASOS)	
17	--	BUILDING/HANGAR (Vacant)	
18	--	MD HELICOPTERS	
19	--	AIRPORT EQUIPMENT BUILDING	
20	--	RESTAURANT	



MAGNETIC VARIANCE-12° 16' East (July 2009)
RATE OF CHANGE 0.58' West
0 400 800 1200
SCALE IN FEET

FALCON FIELD AIRPORT
AIRPORT LAND USE PLAN
(PROPOSED)
MESA, ARIZONA

PLANNED BY: James M. Harris, P.E.
DETAILED BY: Maggie Rogers
APPROVED BY: James M. Harris, P.E.
September 1, 2004 SHEET 1 OF 1



V. EMPLOYMENT CENTER STRATEGIC DIRECTION

OVERARCHING RECOMMENDATIONS

Opportunity is the overarching theme behind our recommendations. The Red Mountain Freeway extension (Loop 202) represents unprecedented access to this part of the city and will bring many new visitors and commuters to and through the Falcon Field Employment Center in coming years. The image those people take away will in turn be spread to their friends and acquaintances throughout the valley and beyond. It is important to act today to ensure that image will be a positive one.

Missed opportunity is important to consider in the context of the Falcon Field Employment Center as well. While the impact of a cumbersome and time consuming development process is not readily quantifiable in terms of lost tax revenues and jobs for local residents, that does not mean it does not exist. Though other factors are clearly important as well, other general aviation airport developments (such as Scottsdale Airpark and Deer Valley Airport) would appear to be reasonable evidence of the success that is possible. In comparing the success of Scottsdale Airpark it is important to note that the Scottsdale Airpark is made up almost exclusively of private land surrounding the runway, making development process faster and easier.

The Falcon Field Employment Center represents an exciting opportunity that has in many ways not yet materialized. Creating the environment that is conducive to economic development will require the City to focus on streamlining the development process such as plan review and permitting, and providing incentives to facilitate business location and commercial development.

STRATEGIES

We have identified four key focus areas under which strategies have been developed, that when implemented will serve to generate revenue for the airport, foster economic development and job creation for the Falcon Field Employment Center. The four focus areas include:

- Falcon Field Airport
- Employment Center Development and Boundaries
- Employment Center Commercial Development
- Employment Center Marketing and Partnerships

For each focus area one or more issues and a short discussion are included. Each issue is followed by one or more strategies designed to address or mitigate these

issues. Lastly, a set of measures which would be indicative of success in addressing the issue is included.

Focus Area: Falcon Field Airport

Issue #1: Hangar Development and Administration

Hangar space on Falcon Field today is clearly a precious commodity, as evidenced by the long waiting list for hangar space and the unrelenting demand for additional hangar space at focus group meetings. Our competitive review of other airports in the metro area revealed that prices across the valley are largely similar and that waiting lists are ubiquitous. Whatever the political realities are that cause a less than market clearing price for T-hangars it is imperative from a net revenue standpoint that periodic price increases occur to (at a minimum) cover increases in operating costs that are a result of overall inflation.

Another aspect that has been identified is the occupancy of the T-hangar space involving the multiple ownership of aircraft through partnerships, leasebacks and fractional ownership by both corporations and individuals.

Additional executive hangar development on the airport would appear to be an important opportunity. These executive hangars would represent a unique draw for the airport are congruent with the high end business development goals of the city. Due to the front end cost of developing executive hangars of the quality that would provide that draw, we recommend that a private developer be brought in through an RFP process to build the hangars.

Strategies:

- Annually conduct a market study of the T-hangar lease rates of area airports.
- Depoliticize price changes for hangars by linking price escalation to the CPI in future T-hangar lease agreements.
- Continue to develop policies for periodic purging of inappropriate current users (not storing a plane for example).
- Annually verify the validity of the waiting list by having everyone complete a “continuing interest form.”
- Continue to enforce the policy that requires aircraft owners to report to the City all aircraft ownership interests and any ownership changes for aircraft based on Falcon Field.
- Solicit RFPs for private executive hangar development to be located in the northwest quadrant of the airport on Mallory Circle.

Measures of Success

Reduced number of names on waiting list, T-hangar and tie down operating revenues

Issue #2: Lease Terms and Development Process

The process of executing a lease on Falcon Field is clearly more difficult than an otherwise similar lease on other land, at a minimum due to the additional layer of bureaucracy introduced by FAA rules and guidelines.

Interviews with a number of lending institutions indicated that making construction loans on leased land is not necessarily very different from loans on owned land, subject to some specific guidelines which are noted on Table 11.

Table 11 – Lender Assessments of Key Factors in Making Construction Loans on Leased Land	
Necessary Conditions	
Lease must be subordinated. If borrower defaults on loan payments the structure must become property of the bank (not the landholder) for the duration of the lease.	
Land lease terms must be at least as long as the amortization of the loan on the building.	
Initial capital investment. Often initial investments in the structure by borrowers must be higher since the land does not represent part of the collateral.	
Desired Conditions	
Land lease terms <i>longer</i> than building amortization period. Callable building loans (for example amortized over 30 years, but due to be repaid with a balloon payment at the end of 15 years) are common. Where the borrower has maintained a good payment history it is typically a routine matter to refinance the remaining 15 years of payments, again subject to land lease terms that cover the full loan period.	
Relatively better creditworthiness of tenants as opposed to creating leases with less restrictive policies governing its use.	

It is interesting to note that one factor we hypothesized would be very important in the process is the lease restrictions on eligible activities in the structure in the event it did have to be repossessed. Restrictions on types of uses (aviation related activity that could not reasonably take place off the airport) clearly limit the market for the lender in finding a suitable replacement tenant. The lenders indicated that rather than charge a higher rate for the additional risk of such a situation, they address it by taking a somewhat harder look at applicants, hoping to push defaults in this arena below the overall typical rate to avoid the problem.

The desirability of the Falcon Field Employment Center (including, but not limited to the airport), both as one of a fairly finite number of large land tracts in the metro area and one with newly “minted” freeway access, has created a situation of fairly rapidly increasing prices. Today (perhaps more than ever in the past) it behooves the city to maintain a handle on current market rates for land and buildings.

Strategies:

- Make sure that the full terms involved in the lease process (not just deal points, but lease restrictions as well) are disclosed early in the process.
- Implement selected changes to the existing boilerplate standard lease terms to make them more attractive to lenders, such as changing to a 30 year base term with *tenant* options to extend the lease.
- Develop a lease rate schedule for vacant parcels to use as a guideline and update this annually.
- Work with real estate brokers active in the region to update asking prices at least quarterly.
- Develop outreach by the Project Coordinator (Building Safety and Planning Departments) regarding the permit and plan review process on Falcon Field, including direct consultation with airport staff on an as needed basis in support of proposed projects.
- For key industry targets consider providing a financial incentive such as a reduction in the lease payment during year one.

Measures of Success

Total number of tenants on Falcon Field, Total value of tenant owned improvements, Total net assessed value of Falcon Field

Issue #3: Falcon Field Appearance

The desire to enhance the appearance of the Falcon Field area is important to help position the employment center in attracting technology based companies and advanced business services. As an anchor and a key focal point within the employment center, the appearance of Falcon Field Airport can help facilitate or hamper future development efforts.

To improve the visual appearance of existing and future buildings at the airport the City could consider a number of approaches. First, establishing design guidelines that would apply to future tenants as well as existing tenants during lease renegotiation. Under current policy at the end of all lease terms and options the improvements revert to the city. This situation creates a strong incentive for anyone building improvements on the airport to build them to minimum standards (since the full value of the higher standards over the full life of the structure to the owner / tenant is reduced) and to avoid taking on preventive maintenance and other up front costs that would extend the life of the building past the lease terms. By way of contrast, the Arizona State Land Department (another large scale commercial land lease entity active in the valley) has taken the policy position that the next land

tenant or future purchaser reimburse the building owner for the remaining value of the improvement. This incentive structure better protects the incentive for the owner to maintain the long term value of the improvement. Another example of incenting tenants to enhance their improvements on leased land is through the use of rent credits. Other airports in Arizona use this technique whereby a negotiated percentage of the value of the improvement is deducted from the monthly rent payment. Lastly providing a longer term lease will give the tenant the opportunity to fully amortize their building. Using these techniques alone or in combination with one another provides the city with additional tools to help beautify the airport. However, the city needs to assess the risk-reward for any approach they may choose to undertake.

Storage of aircraft that is not air worthy should also be discouraged to prevent the airport from looking like a junkyard storage facility. To overcome or prevent this problem the City should consider a policy that requires stored aircraft to be air worthy within a specified period of time, such as one year. Extensions could be granted by the Airport Manager providing that significant visible progress is being made towards achieving air worthiness.

The City should also consider additional beautification projects at the airport such as adding more trees and bushes around the run-up and departure areas. A good example is the landscaping at McDowell and Greenfield Road intersection. This will serve a dual purpose by accomplishing airport beautification and helping to absorb ground noises from the airplanes.

Strategies:

- Consider establishing design guidelines governing future development at the airport
- Consider various incentive options that will allow the tenant to recover the value of their improvements and determine which one(s) may work for the city.
- Create a policy that discourages the storage of un-airworthy aircraft and begin notifying aircraft owners of the new policy.
- Identify other beautification projects at the airport and begin adding them to the airport capital improvements plan.
- Update the 1992 Airport Master Plan within two years.

Measures of Success

Decrease in the number of stored aircraft, facilities built for new tenants are of high quality, additional dollars spent on airport beautification

Issue #4: Preservation of existing aviation related business

According to the Aircraft Owners and Pilots Association (AOPA) one public-use airport per week for the last 20 years has shut down due in part to urban/suburban encroachment. As a community asset, Falcon Field Airport contributes nearly \$600

million of direct economic impact into the state's economy.¹⁰ Securing the future of Falcon Field Airport is necessary for the long term success of the area employment center. Land use and development plans are among the most potent ways to protect an airport while still allowing development near an airport. The City of Mesa's recently adopted General Plan identifies primarily employment generating activities (industrial, office, business park, and mixed use employment) surrounding the Falcon Field Airport. This is an important first step but additional measures should be taken to mitigate the potential for noise complaints from future development and help preserve aviation operations and Boeing's test flight corridor.

The FAA Compatible Land Use Planning Task Force in 1998 developed a resource guide to assist local governments and airports in identifying and implementing appropriate land use planning tools. The City of Mesa has already developed many of the tools recommended to communities including the recently adopted land use plan, building code to help attenuate outside noise levels for residential development, and creation of aviation easements. Preserving the integrity of airport operations will facilitate the attraction and retention of on airport and off airport aviation related activity.

Strategies:

- Safeguard Falcon Field and Boeing aircraft operations by continuing to stipulate aviation easements in future zoning cases. Coordinate with the State Land Department to request that their future leases include a similar agreement.
- Require noise attenuation stipulations in future zoning cases that address design and construction for commercial and retail development to achieve a noise level reduction of 20 decibels for development within an area with a noise level greater than 65 Ldn.
- Carefully review any request to downzone land surrounding Falcon Field for its potential impact on airport operations.
- Continue to connect with the community by scheduling public open houses to involve nonfliers with the business of aviation.

Measures of Success

Number of noise complaints received, number of aviation easements created

Focus Area: Employment Center Development and Boundaries

Issue #1: Development Process too Difficult / Costly

The difficulties inherent in development activity (new construction and expansions and minor use / configurations alterations within manufacturing processes) were

¹⁰ "The Economic Impact of Aviation in Arizona 1999." City of Mesa-Falcon Field Airport.

often cited as concerns in the focus group and interview process. This is also an area where efforts to improve by the city were specifically recognized and appreciated.

Developers and investors familiar with multiple jurisdictions in the metro area generally rated Mesa as “middle of the pack” with respect to its development guidelines and process. Many indicated that overall these processes have become more difficult over time (in all cities), leading to the perception among businesses only active in Mesa that local restrictions have been increasing (which they insist is true, but not exclusive to Mesa). Other rules and guidelines (county, state, Federal, FAA) are also generally increasing over time, adding to the (true) perception that doing deals is harder than ever.

Interviewees indicated that the city has taken steps and made progress toward the goal of moving at the “speed of business” in recent years. One specific example was the creation of a Development Advisory Forum that is made up of large employers (such as Talley, TRW, and Boeing) and some major developers which meets monthly to discuss proposed changes to city policies, rules and regulations. While taking comments from groups such as these is fairly ubiquitous among cities, members of this council we interviewed indicated that they truly believed that their views and recommendations were taken seriously and were often implemented (though the city’s process for implementing their recommendations is fairly slow).

Other issues related to the development process that were pointed out time and again were: rules changing depending on who happened to be the contact on a given day, lack of a customer service attitude (staff more apt to tell someone why something can’t be done than how it could be accomplished), and a lack of understanding of the cost that delays and long processes cause. The city has taken clear steps to begin to address these issues, including staffing four “Development Project Coordinator” positions in the building safety department who acts as ombudsman for development projects and implementing technology driven tracking of the status of development proposals (added first in the FY2003-04 budget and slated to remain in FY2004-05).

Strategies:

- Examine the rules and processes for opportunities to allow for staff level decisions to the fullest extent possible to streamline the development process.
- Reexamine staffing levels and remove selective hiring freezes as soon as the city’s budget crisis permits.
- Develop automatic permit fast track for projects in employment centers (could restrict by policy to non-retail and / or above average wage).
- Continue monthly meetings of a “Land Development Team” including Police, Fire, Development Services, Planning and others as appropriate to simultaneously air concerns over proposed projects including recommendations for workable solutions to identified issues.

Measures of Success

Average time to process a permit, percentage of permits processed “over the counter” and average length of time to go through plan review.

Issue #2: “The Strip” of designated employment center land

In addition to the contiguous boundaries of the Falcon Field Employment Center that are commonly agreed upon, the city’s employment center profile includes a strip of land on the north side of Thomas Rd. (along the Loop 202) extending all the way to Gilbert Rd. Part of this strip (from just west of Greenfield to approximately the half mile past Val Vista) was also identified as part of the Falcon Field Sub Area in the General Plan and is designated for employment uses. The area west of this however appears to include some land identified in the General Plan as medium density residential. Participants in the HOA focus group identified this discrepancy and described the unique guidelines for office development around the “citrus area” that are called for in the Citrus Sub Area Plan in response.

Strategies:

- Address the implicit policy decision regarding the (currently designated) residential land bordering the Val Vista interchange of the Loop 202.
- If deemed appropriate adjust the boundaries of the Falcon Field Employment Center by eliminating this strip of land.

Measures of Success

Decision reached

Issue #3: Northern gateway image enhancement

There are currently a mix of land uses that mar the visual appearance of the Red Mountain Freeway (Loop 202) as you approach Falcon Field, including the Salt River and existing sand and gravel operations. The City of Mesa in collaboration with the Salt River Pima-Maricopa Indian Community (SRPMIC) and the Army Corp of Engineers conducted a feasibility study to evaluate the restoration of the riparian ecosystem extending along the Salt River from the Pima Freeway to the Granite Reef Dam. This project is called Va Shlyay Akimel and the preferred alternative would require the removal and restoration of sand and gravel operations, and provide for trails, wetlands, and revegetation to support various habitats. Also proposed are passive recreation for visitors that are in harmony with the SRPMIC’s management of its culture and native ecology. This ambitious project entails 4,130 acres with an estimated project cost of \$117.6 million. Its completion will dramatically improve the visual appearance of Mesa’s northern gateway to the city.

Another issue that should be addressed by city staff and state transportation planners includes the physical appearance of the Loop 202-Greenfield and Higley Road interchanges. This is the city’s northern entrance to Falcon Field and the Employment Center and a positive visual first impression needs to be made.

Appropriate landscaping and monument signage should be planned for as development begins to take place.

The creation of a Falcon Field sub-area plan by City planners will serve to address many of the land use and visual issues noted in this report. The boundaries of the sub-area plan should coincide with the employment center boundaries.

Strategies:

- Continue to work with the SRPMIC to keep Va Shlyay Akimel project on track.
- Identify any potential federal, state and private funding sources to help defray project expenses.
- Begin promoting Va Shlyay Akimel to the public to garner widespread support.
- City planners should work with ADOT on visual enhancements to the Greenfield and Higley Road interchanges.
- Develop a Falcon Field Sub-Area Plan.

Measures of Success

Cost sharing agreement is reached and project is implemented, landscaping plan and funding is developed

Issue #4: Provide economic development incentives

Attracting commercial development and new business locates is a very competitive business. Not only is the Falcon Field Employment Center competing with other employment centers throughout the valley, it is also competing with a host of other communities outside of the immediate area and state. Today's business environment requires communities to offer a variety of incentives in order to achieve their economic development goals. In the case of the Falcon Field Employment Center, the City will need to encourage developers to take the risk and make a major investment in the market.

The Economic Development Office was requested by the Mesa City Council to prepare an incentive report. This report will outline the various incentives currently offered by Mesa and compare that to other valley communities. It will also provide recommendations on various incentives the City should offer (such as expedited plan review and permitting, fee waivers, sales tax abatement, infrastructure assistance and the like) based on industry type and geographic location within Mesa.

.Strategies:

- On a case by case basis examine the economic impact of a proposed project and determine the level of incentive that should be offered.
- Prepare a report for the City Council on incentives that provides a comparative analysis of incentives offered by other valley communities, and provides recommendations on incentives that should be offered to both an end user as well as the development community.

Measures of Success

Number and value of the incentives offered compared to the economic value of the project (i.e. jobs created, dollar value of payroll, square feet constructed or leased, dollar value of construction, etc)

Focus Area: Employment Center Commercial Development

Issue#1: Attract developers to build class A office space

Although aerospace and aviation is the main focus for the Falcon Field Employment Center, our quantitative industry cluster analysis also identified a number of other appropriate industry targets. Of the 36 non-aviation industries identified, 20 are potential office users. These targets include advanced business services, education, and health services.

Attracting these targets to the Falcon Field Employment Center will require an inventory of available class A office, including multi-tenant and flex/office space. Having available space and/or developers ready to provide a build-to-suit product will enhance the success of the City's recruitment efforts.

Strategies:

- Begin attracting other developers to build Class A business parks and office space.
- Host a Falcon Field function to provide them with an overview of the area and employment plan.
- Develop a Falcon Field News Brief and electronically mail on a quarterly basis to prospective developers, brokers and end users.

Measures of Success

Square feet of office space that is planned and built

Issue#2: Attraction of a business class hotel (with meeting room space)

One business amenity that is conspicuous in its absence in the Falcon Field Employment Center is a business class hotel (such as a Hilton Garden Inn or similar) that has on site dining and meeting room space. A hotel was a commonly sited amenity desired in the area by key employers as well as many focus group participants.

There are some potential hotel sites in the study area and vicinity. For example the Longbow Business Park has a site for a business class hotel, which will probably develop before any other site within the Falcon Field Airport due to its proximity to the Red Mountain Freeway and the ease of dealing with fee simple land. There have been a few proposals in recent years for hotel development in the area, but the proposals have come from lower end hotel projects; which would not be able to capture a substantial share of business traffic generated by Boeing and other companies in the region.

The Mesa Convention and Visitor's Bureau tracks room nights generated by Boeing, and they range from 2,500 to 3,000 annually, but other businesses in the study area and the airport itself (which combined are likely substantial generators as well) are not specifically tracked today. It is estimated that a minimum of approximately

6,000 business room nights that a hotel could expect to capture would provide a sufficient base for a project of relatively high quality.

It should be noted that 35 acres adjacent to the Las Sendas residential master plan (located just northeast of the study area) have been historically set aside for a resort hotel. Knowledgeable individuals have indicated that a resort hotel at this location (or anywhere in the Falcon Field Employment Center) within the next five years is practically impossible. Reducing the size of the set aside of the Las Sendas property to 13 acres for a hotel of the quality desired for the area (and with some meeting space) has been discussed.

Strategies:

- Continue to work with the Mesa Convention and Visitors Bureau (MCVB) to evaluate proposals.
- Work with the MCVB to develop a room nights survey of Falcon Field Employment Center businesses and based aircraft owners.
- Encourage the development of a business class hotel within the employment center and possibly at the eastern entrance to the airport off of McKellips and Falcon Drive.

Measures of Success

City's Federal standard room reimbursement rate,¹¹ location of a hotel within five miles of the study area, hotel tax revenues generated

Focus Area: Employment Center Marketing and Partnerships

Issue: Leverage partnership opportunities

Contributing to the city's success in economic development is its working relationship with its regional partners, which include the Maricopa Association of Governments (MAG), the Greater Phoenix Economic Council (GPEC) and the Arizona Department of Commerce (ADOC).

MAG - Provides regional transportation planning and research, particularly for the employment center areas in the Phoenix metro area.

GPEC - Phoenix metro area's marketing and business recruitment organization throughout the United States and the world. Companies typically begin their site search by identifying a limited number of metropolitan areas as generally meeting key criteria, before choosing individual cities and / or sites. Thus GPEC's business recruitment activity has substantive impact on the pool of potential businesses to be

¹¹ Standard reimbursement rates are developed based on average room prices in a given market. Cities / market areas that lack (or have very few) business class hotels will have lower reimbursement rates which in turn reduce demand for the business class hotels since travelers would have to pay the difference out of their own pockets (many large businesses base acceptable reimbursable expenses for their employee lodging expenses on these government standard rates).

recruited to Mesa. The cities have some influence on the particular industry clusters that GPEC concentrates its efforts on targeting. In addition they can take advantage of cooperative advertising, participate in a number of GPEC sales missions and Executours and take advantage of GPEC research findings.

ADOC - Offers numerous programs to assist local government and businesses throughout the state, including global business development, small business assistance, export assistance, and workforce development. .

New on the scene is the Falcon Field Area Alliance, a marketing group that is in the process of being created in the region. It will be an association of all business types (including retail) aimed primarily at business attraction to the Falcon Field Area.¹² This group may be able to accomplish some prospecting for expansions of existing valley companies that are off limits to city economic development staff as a matter of professional courtesy. Once this association is fully functioning with business members, the city staff should participate in activities that further the city's economic development goals.

State Land located around the Greenfield and Loop 202 interchange (particularly to the southwest) represents a potential opportunity for the city. According to the State Land Real Estate Department they are already receiving inquiries on this parcel. Re-designating this land to allow retail, office, and / or higher education development would appear to be more appropriate uses of this land today. Retail in particular would be in congruence with the land use objective of attracting retail development into the growth areas of the city.¹³

Technology manufacturing, including suppliers to large employers such as Boeing, is a key economic development goal. These types of companies pay relatively high wages and typically produce many products for export outside of the local market. They also provide opportunities to retain skilled labor force (including attracting other educated persons) which in turn supports new high end industry development and spin-offs. One factor that is often cited in the pooling of knowledge and in spin-off development is regional networking. Networking associations with technology focus, such as the Tech Oasis,¹⁴ can produce synergies between workers as well as between companies. The Tech Oasis model began in Tempe and has been successfully replicated in Scottsdale, Tucson and Northern Arizona. It is a volunteer organization that holds monthly events to provide networking opportunities among area businesses. General guidelines for starting up a Tech Oasis can be found at

¹² At the time of our interview the specific geographic boundaries for the alliance had not been determined, but it was planned that they would include all of the Falcon Field Employment Center (except the strip of land along Thomas west of Val Vista) and extend somewhat farther in the other directions.

¹³ As noted in Mesa 2025 A Shared Vision Policy LU 4.1a, also possibly relevant to Policy ED 1.3c to promote big box sites strategically positioned to minimize sales tax leakage but not promote incompatible neighboring land uses.

¹⁴ Tech Oasis is a public/private partnership founded in 1999 whose mission is to help further build and brand Arizona as a premier technology region.

www.tech oasis.org. Industry associations in this vein also serve as a signal to potential new locates of an active network to tap into and can come to serve as industry advocates on crosscutting issues, such as regulatory difficulties and sub optimal tax policy.

Collaboration and partnerships with both public and private sector stakeholders will be the cornerstone to achieving successful economic development. In addition to streamlining the development process (noted in the earlier focus area) the City must also play a more proactive role by allocating financial and staff resources that focus on the Falcon Field Employment Center area. Using the Economic Development Advisory Board (EDAB) to serve as a sounding board for the City as it relates to development related issues would be useful in plan implementation.

Strategies:

- Consider changing the land use designation of one or more corners of the State Land at Greenfield and the Loop 202 to a commercial category. Work with the State Land Department in the development of a land use plan for this parcel.
- Continue to support and participate in GPEC Aerospace and Aviation recruitment activities.
- Support the efforts of the Falcon Field Area Alliance as it relates to business recruitment, after the association obtains members.
- Continue to work with existing employers to identify expansion opportunities and potential relocations of their supplier networks.
- Facilitate the creation of the Tech Oasis model in the Falcon Field Employment Center.
- Use the Economic Development Advisory Board (EDAB) as the citizen's steering committee to provide guidance on a variety of issues including providing input for the creation of the Falcon Field Sub-Area Plan, advising the City of employment center marketing activities, and the like.
- Dedicate a full time staff person in the Economic Development Office to be the primary point of contact, to facilitate job creation in the Falcon Field Employment Center and implement the recommendations in this report. This position should coordinate efforts with the Falcon Field and Development Services staff on a regular basis.
- Develop a five-year marketing plan to promote the Falcon Field Employment Center to business and industry targets, including the creation of appropriate collateral marketing materials.
- Modify the City's existing economic development web site to showcase the Falcon Field Employment Center area.

Measures of Success

New State Land acres leased, Total employment at Falcon Field Employment Center, Total employment and number of companies in the Aerospace and Aviation cluster, Creation of the Falcon Field Tech Oasis and the total participation

ORCHARD PROPERTY DISPOSITION

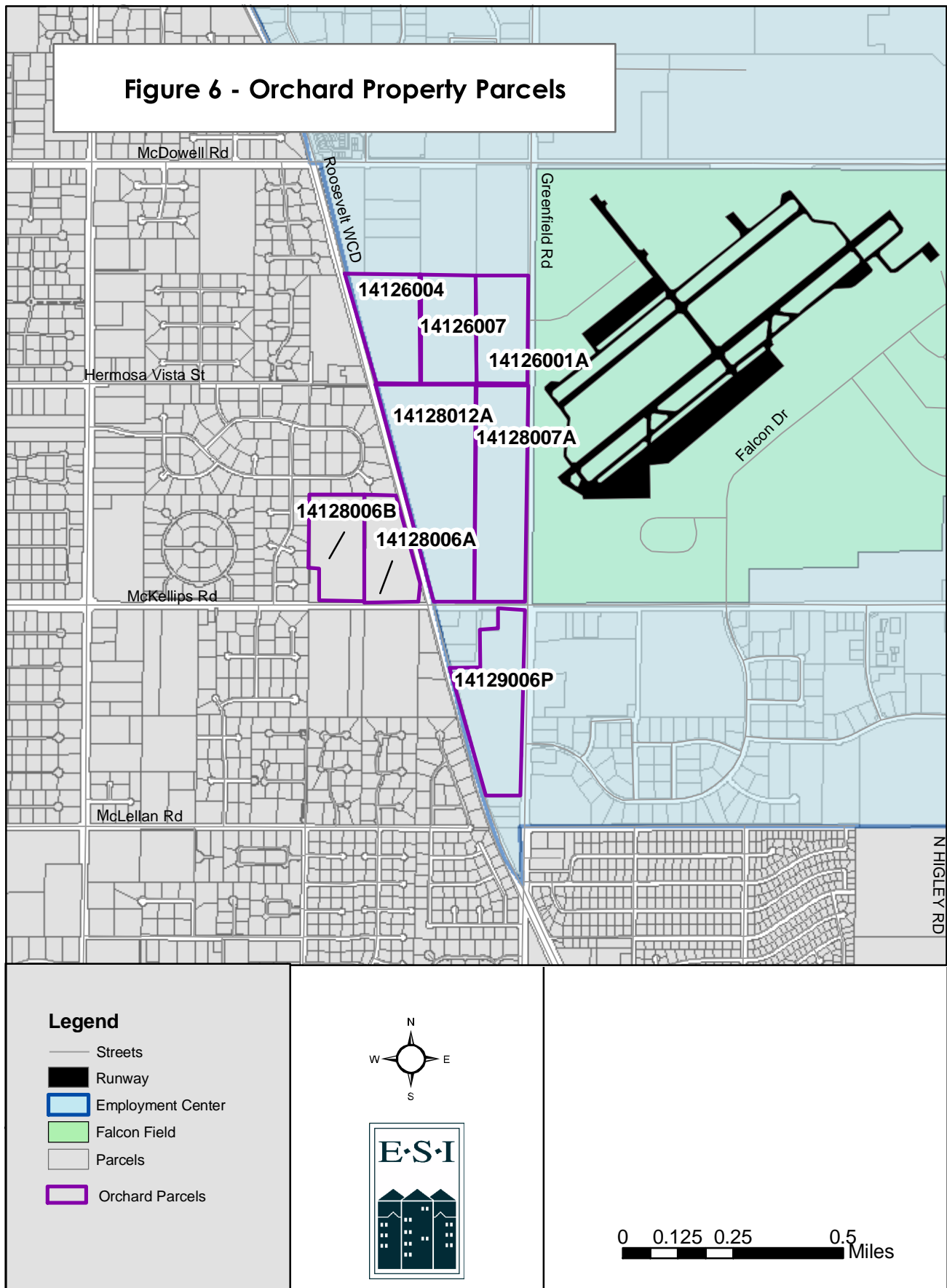
The City of Mesa owns several parcels of orchard property totaling approximately 218 acres to the west of Falcon Field airport in the study area shown on Figure 6. Five of these parcels were purchased in 1978 by the city using general fund dollars. The remaining parcels were purchased with grant moneys received from ADOT. See Table 12.

Table 12 Orchard Property Acquisition Date and Source of Funds			
Parcel Number	Total Acres	Date Acquired	Source of Funds
14126004	24.80	1/31/1978	City General Fund
14126007	20.00	1/31/1978	City General Fund
14126001A	18.79	1/31/1978	City General Fund
14128012A	51.33	1/31/1978	City General Fund
14128007A	37.01	1/31/1978	City General Fund
141-28-006A & 6B	33.13	5/19/1995	ADOT Grant (90/10)
141-29-006P	33.60	11/26/1997	ADOT Grant ¹
Total Acres	218.66		
Note 1: Purchased 12.95 acres with 90/10 grant and 20.65 acres with 50/50 grant Source: City of Mesa Real Estate Services			

Essentially the property of potential interest for our purposes includes the five city owned parcels bought with general fund money located north of McKellips Road, between the Roosevelt Water Conservation District Canal and Greenfield Road and approximately one quarter mile south of McDowell Rd. These parcels total approximately 150 acres and were purchased by the city for \$1.2 million on January 1, 1978, and city records indicate no other revenue source for the purchase aside from the general fund.¹⁵ The County Assessor maintains an assessed value of \$1.1 million, but City of Mesa Real Estate Services estimates a market value of \$15 million for these five parcels today. Two of the parcels (totaling 50 acres) located furthest to the south are in and near the runway protection zone (RPZ) and as such will be limited in its potential uses. These two parcels account for more than \$8.5 million of the total.

¹⁵ Information obtained from Scott Rigby, City of Mesa Real Estate Services in email dated 3/8/04. If grant funding from state or Federal sources were involved that funding could have come with the stipulation that the land purchased be used only for aviation purposes or with the restriction that it not be developed. City of Mesa Real Estate Services research did not uncover any such restrictions.

Figure 6 - Orchard Property Parcels



The most recently adopted Airport Layout Plan identifies the Orchard Property as part of the airport. If the city were interested in using this property for non airport related uses they would have to go through a formal release process with the FAA. According to the FAA, all requests for a release, at the very minimum, must meet the standards specified in the U.S. Code and FAA Order. Based on those standards, land may be released only when it has been clearly demonstrated that the land no longer has an airport purpose. The release process typically takes 6 months or more and any revenue generated from the lease or sale of the property would have to be reserved to help the airport. A representative from the Aeronautics Division of ADOT also indicated that the parcels purchased with ADOT grant monies would need to go through the release process.¹⁶ The State would accept the same application required by the FAA. Appendix E includes FAA land release instructions.

Given existing competitive product in the balance of the Falcon Field Employment Center alone, the short term prospects for development on the orchard property are not terribly bright even without potential regulatory concerns. However, this part of the city is clearly poised to take off in the near term, so interested developers are likely to surface in the next few years.

We recommend that the city not attempt to become a developer for this property. Mesa can allow potential developers to submit development plans that either exclude the southern orchard property in the runway protection zone, or place allowable uses (such as parking) in that part of the development. Obtaining FAA approval of development plans, and obtaining releases from both ADOT and the FAA in the event the development plans are for non airport related uses, should be the responsibility of the developer. We recommend that any proposed lease or sale be specifically conditioned on receiving such approvals or releases.

Another potential difficulty in developing the orchard property will be in accommodating the neighbors. Citrus area (the residential developments to the west) residents have been historically outspoken about proposed uses on this site. A proposed light industrial user was strongly opposed, and a post-secondary school was greatly supported (though the latter deal did not materialize). The general consensus (given other experiences in the past) is that the canal alone is not a sufficient buffer between residential and (noisy) non-residential uses. As such, depending on the type of use, some special site configurations might be necessary on the orchard property (such as leaving existing trees along the canal as a buffer as is done along the street in the adjacent residential neighborhoods).

With all of these concerns disclosed up front we believe that an RFP process will yield at least a few suitable alternatives for city staff to consider in light of the job creation and revenue generation goals of the city.

¹⁶ Telephone conversation with Ray Boucher, ADOT Aeronautics Division on 5/17/04.

Given the constraints of noise and neighbors to the west, some particular development types that would make sense on this land are:

- Educational (particularly if the State Land parcel at Loop 202 and Greenfield winds up being developed as something other than education).
- Light manufacturing or warehouse.
- Restaurant / café; particularly if it is marketed to consider watching planes take off and land as an amenity.
- Back office activities (such as Payroll Services or Document Preparation Services as identified among the Advanced Business Services industry targets) could also be appropriate, depending on site configuration.
- Automobile rental agencies (to service area residents, the airport and the local businesses).
- Cemeteries

Appendix A - FOCUS GROUP MEETING AGENDA AND SIGN – IN SHEETS



FOCUS GROUP MEETING AGENDA AND SIGN – IN SHEETS

ESI CORP
300 WEST
CLARENDON
AVENUE
SUITE 470
PHOENIX
ARIZONA
85013

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AGENDA

Falcon Field Employment Center Study Focus Groups January 21, 2004

1. Welcome and self-introductions
2. Overview of study area (ESI)
3. Overview of airport master plan (Coffman)
4. Focus Group Input
 - Economic and employment opportunities (on and off the airport)
 - Creating long term quality for the area
 - Defining needs for the area
5. Wrap-up and Next Steps

Falcon Field Area Employment Center Study

On Airport Aviation Business Firms Focus Group

Name	Company or Organization	Phone Number	Email Address
JAMES TIMM	AIR PLANS ASSOC	480-839-9187	
Samantha Hertzler	TANGO ONE AVIATION	480 641 5000	
Thomas Hertzler	TANGO ONE AVIATION	480 641 5000	
PAUL LESSAONGLING	FALCON AVIATION	480 832 0704	
Mark & Julie Wilkison	Air West Inc	480 396-0688	
Michael Rhoads	Heliponents	480-981-8300	
JOHN MANROSS	MONASTERY EFF.	480-894-1680	next mly

Falcon Field Area Employment Center Study

Focus Group

[illegible]

Falcon Field Area Employment Center Study

Aircraft Owners Focus Group

Name	Company or Organization	Phone Number	Email Address
LARRY PETERSON	G.A. PILOT SANDRA NATIONAL	480-205-3948	LEYSAR@Juno.com
Peggy Linkin	G.A. Pilot	480-816-1847	larrynpeggy@earthlink.net
Steve Solomon	G.A. Pilot	480510-2321	sd Solomon@att.net
Mike Braegger	G.A. Pilot / owner	480-545-5946	dmikey@cox.net
BILL MCINTYRE	PILOT / owner	480-962-1373	
Kristina Huffman	Pilot / owner / CFI	480-218-9131	AREPHYSCAOL.COM
RANDY BELL	PILOT / owner	480-838-3513	RANDYBELL@AOL.COM
Ralph Chorchman	PILOT / owner	400 981-7062	Ralph Chorchman@cox.net

Falcon Field Area Employment Center Study

Home Owners Association Focus Group

Name	Company or Organization	Phone Number	Email Address
Howard Copp	Wells HOA	480-654-2991	copp@wells.com
MARV LARSON	APACHE WELLS HOA	480-924-8656	MARV LARSON@JUNO.COM
Cherie Furey	Rancho Ranch OA	480-981-6480	RMROA@MSN.COM
Julee Brady	NORTH EAST WELLS HOA	480-641-3679	bradecb@msn.com
JERRY BUZA	SADDLEBACK HOMEOWNERS (CAH)	480-807-5892	JEROMEBUZA@CCT.NET
Lew Lenz	Citrus Area Homeowners	480-396-3945	LLENZ@aol.com
Jim Desmarais	Barbara Bush Elementary	480-472-8541	jdesmar@mpsaz.org

[illegible]

Falcon Field Area Employment Center Study
Off Airport Businesses Focus Group
Group B

Name	Company or Organization	Phone Number	Email Address
KEVIN WHITE	SDI	(480)-220-4192	kwhite@specialdevices.com
Jim Le Cheminant	Mesa Bank	480-324-3511	Jim.lecheminant@mesabank.com
Darrell Billomy	Sunshine Acres C.H.	480-832-2540	...
Marcie Franklin	Talley Defense Systems	980-898-2615	mfranklin@talleyds.com
Oxto Shill	Jackson White	480-464-1111	oshill@azmesalaw.com
Louis Yates	Falcon Field Area Alliance	602-889-2333	lyates@datacube.com
Marv Pierce	Lee + Associates Inc.	602-954-3750	mpierce@lee-associates.com

Appendix B - INTERVIEW AND FOCUS GROUP FINDINGS

INTERVIEW AND FOCUS GROUP FINDINGS

The study process included personal interviews on location with a number of the region's key stakeholders including:

- major employers
- landowners and developers
- city staff and other governmental entities

In all, more than 20 interviews were conducted, the majority of these occurring during the week of January 12th. Most were conducted in person, supplemented with phone follow up on an as needed basis. Interviews were conducted under the understanding of confidentiality for individual interviewees, but a summary of some of the top issues identified over and over during the process is instructive. Table 1 lists some of the key issues and findings from the interview process.

Table 1 – Key Issues and Findings from Individual Interviews	
Issue	Description / Notes
Doing deals in / with Mesa	<ul style="list-style-type: none">▪ Too many people and departments involved in the process.▪ Eleventh hour changes in negotiated deals are common.▪ “Fuzzy” rules that sometimes change during the process are a bigger issue in Mesa than most cities in the valley.▪ The mix of major land holders in the Falcon Field Employment Center area are among the toughest to do deals with; particularly quickly (Arizona State Land Department, Salt River-Pima Indian Community, Bureau of Land Management, City of Mesa, disenchanted private land holders).▪ City staff are generally helpful, but the bureaucracy is very cumbersome.▪ Public advisory boards are brought into the development process too frequently.
Airport land development	<ul style="list-style-type: none">▪ City is asking for substantially more power and egregious terms in current leasing negotiations. Stark contrast from the deals done in years past.▪ Scottsdale Airpark is made up almost exclusively of private land surrounding the runway, making development process faster and easier.

Table 1 – Key Issues and Findings from Individual Interviews

Issue	Description / Notes
Skilled labor	<ul style="list-style-type: none"> ▪ Entry level semi-skilled (assemblers) are plentiful. Have some difficulty filling experienced technical / engineering positions in local searches (since the scale of our operations does not allow the ramp up time needed to hire new graduates). ▪ Need to work with ASU on curriculum of software engineers, new graduates often don't have the skill sets we need. ▪ Large companies like Motorola, Honeywell, and Boeing are the place where our high end workforce is developed.
Findings	Description / Notes
Extremely low vacancy rate	<ul style="list-style-type: none"> ▪ Attributed in large part to a lack of speculative building in this area. Almost all activity to date has been build to suit and small scale (1 acre or less). Opening of Loop 202 expected to make this area a more regional market with larger developments.
Supply chain, subcontracting, outsourcing	<ul style="list-style-type: none"> ▪ Small businesses that work well with large businesses are a great opportunity in the valley today. ▪ Local outsourcing is a trend today; but the trend could change to international outsourcing as companies become more comfortable managing it. ▪ Military and aerospace markets are both relatively thin with high prices; putting a particularly high premium on supply chain product quality.
Role of Boeing	<ul style="list-style-type: none"> ▪ Many employers in the study area list Boeing as their main or even sole customer. ▪ Most believe short term (through 2006) future of Boeing is bright, but have concerns about the "next big project" for this location.

Table 1 – Key Issues and Findings from Individual Interviews	
Issue	Description / Notes
Spin-offs	<ul style="list-style-type: none"> Occupational spin-offs are a great opportunity. Many engineers involved in aerospace are not aerospace engineers per se, but rather software or mechanical engineers whose skills are readily transferable to other opportunities. Many (most) support industries and spin-offs of huge companies like Boeing are themselves very small (5 to 20 employees). Almost none need direct runway access, but do value being geographically close to the company they were spawned from; which typically remains their largest client for many years.
Reliance on Falcon Field (airport)	<ul style="list-style-type: none"> Most employers did not place any particular priority / importance on being located next to the airport.

Focus groups were also convened to identify particular issues and opportunities for the Falcon Field Employment Center as viewed by various constituent groups. These focus groups were conducted January 21, 2004 in a full day session of hourly meetings with different groups at the Mesa Public Safety Training Facility (which is located in the study area). The process of each group entailed a short presentation of the study area, our objectives, and some background concerning the airport itself; followed by a facilitated group discussion. Hundreds of potential constituents were identified by the city through a review of various existing records, such as tenants on the airport (buildings and hangers), employers in the study area, and members of homeowners associations in the area. The initial list was winnowed down using criteria such as titles (presidents of HOA's for example) and longer tenure at Falcon Field (for lease holders and aircraft owners). City staff attempted to make contact by phone with approximately 100 constituents. Of these, 72 indicated interest in attending and received a follow-up letter and map via email. Based on a count of names on the sign in sheets (some participants chose not to sign in), 36 attended. The meeting agenda and sign in sheets are located in Appendix A. Table 2 shows a list of the constituent groups of each focus group and the number attending each session.

Table 2 – Focus Group Constituent Groups and Attendance	
Constituent Group	Number Attending ¹
On Airport Aviation Business Tenants	6
On Airport Non-Aviation Business Tenants	4
Aircraft Owners	8
Home Owners Associations (HOA) ²	7
Off Airport Businesses Group A ³	4
Off Airport Businesses Group B ³	7
<p>Note: 1. Reflects the actual number signing our sign in sheets at the meetings. Others did attend and chose not to sign in.</p> <p>Note: 2. Though the employment center boundaries are specifically designed to include commercial / industrial land and not residential, we felt it was important to consult with HOA's active in the region for their input as to ways to make the character of development in the study area compatible with their neighborhoods and part of a job center they are happy and proud to live near.</p> <p>Note: 3. These were split into two groups due to the size of the potential group invited.</p>	

Some of the issues pointed out by each of the focus groups are identified on Table 3.

Table 3 – Key Issues by Constituent Group	
Constituent Group	Key Issues Identified
On Airport Aviation Business Tenants	<ul style="list-style-type: none"> ▪ Permitting / entitlement process arbitrary, too long and has too many players (Airport Manager should be in charge). ▪ Need for more hangers is critical. ▪ Need a definite plan (can we expand our operations or not). ▪ Development requirements should be different on the airport to reflect unique circumstances. ▪ Many small businesses active on the airport could be better than holding out for one large one. ▪ How can the city go wrong allowing development on the airport; they will own the building at the end of the lease? ▪ Integration with the community (park, restaurants) is a big plus for Falcon Field.
On Airport Non-Aviation Business Tenants	<ul style="list-style-type: none"> ▪ Runway too short, should expand despite political opposition from a few HOAs. ▪ City has a hard time saying “yes” to new development (on and off of the airport). ▪ City staff tell you why you can’t do something, instead of how you can (attitude is not a client / customer one). ▪ Not specifically anti-business, just not cognizant of the difficulties that are caused by long time horizon and difficult process. ▪ Culture of city government is important, large share of staff poised to retire should offer an opportunity. ▪ City policies regarding subordination of leases a specific hurdle to banks to making construction loans on Falcon Field. ▪ City very fearful of being sued / legal department is a specific hurdle to business (city uses litigation attorneys instead of negotiators). ▪ Permitting in all cities is tough, but Mesa should strive to be the best, not just better than the others.

Table 3 – Key Issues by Constituent Group

Constituent Group	Key Issues Identified
Aircraft Owners	<ul style="list-style-type: none"> ▪ More hangers are needed. Public or private hanger development; either would be good. ▪ Runway extension was a safety issue, not really to bring in larger aircraft (engineering of runway would also have to change for this to occur) that should still be pursued. City didn't do a good job of making the case for the runway. ▪ Concerned that if focus on airport changes to job creation that FAA could a) not give future grants for improvements at the airport b) ask for payback of some existing grants. ▪ What is trend of companies maintaining own aircraft expected to be? Is low cost of airline tickets more important, or cost of time (travel delays / security)? ▪ Could have hangers off the airport itself (similar to Boeing's through the fence arrangement). ▪ A hotel is needed in this part of the city. ▪ Sprinkler requirement is a specific example of a building requirement that is a bad idea in a hanger. ▪ Security (fencing and general public access to planes tied down) are issues. ▪ Could form a pilot's group to educate residents in the community, rather than just taking complaints.
Home Owners Associations (HOA)	<ul style="list-style-type: none"> ▪ Multi-modal access (especially "Sun Circle Trail" for hiking and biking) important for this area. ▪ Would like to preserve character of development on the "pan handle" on Val Vista. The Orchard Area plan has specific guidelines for setbacks, parking, etc. for office activity in this area. ▪ Every change in council is another possibility that we will lose the promises made by previous administrations regarding commercial development in the orchard area. ▪ The Commons is an example of a bad development (canal is not a sufficient barrier to the noise that occurs). ▪ Longbow representatives have engaged the HOAs, the development seems like a good one. ▪ Corporate headquarters are a good target for this area.

Table 3 – Key Issues by Constituent Group

Constituent Group	Key Issues Identified
Off Airport Businesses Group A	<ul style="list-style-type: none"> ▪ Not extending the runway was a disaster. City did not do enough to pitch their side of why it was important. ▪ Lots of restaurants are interested in the area. It is underserved relative to daytime population today. ▪ Rules are applied arbitrarily. As city staff changes so do the rules governing development. ▪ High end homes in this area are encouraging movement across the continuum from industrial typical around an airport to high end business parks. ▪ Hotel in the area would make sense, but not on Falcon Field itself. A hotel on the airport would be low end, but this area needs a higher level hotel with conference space to service local businesses. ▪ Hangers for purchase (with through the fence agreement) are missing here. ▪ Offices with hanger space are an interesting niche, but Falcon Field doesn't have the high end image to make this a deep market. ▪ Helicopters are a great activity / opportunity for Falcon Field. We accommodate them here better than most airports and have capacity for more helicopter activity. ▪ City process is very cumbersome for small projects, while big developers have the extra money and support it takes to make the process go quickly. ▪ Office of Economic Development does not have the power it should to make projects happen. ▪ City could /should support new projects more. Could have a "development team" made up of police, fire, public works, etc. that could air all of their concerns with a potential project <i>at the beginning</i>. Having these people in closer contact would also help because sometimes one departments suggestion for a change makes new issues for another. ▪ City should come up with options. Instead of why something can't be done, ways in which it could. ▪ Longer lease terms would provide incentive for more and higher quality buildings. ▪ Potential industrial park land on the airport (without runway / taxiway access) is not competitive in the region and will sit vacant for a long time. ▪ The development issues caused by being on an airport are necessary, city should make a conscious effort not to add to those issues. The new design guidelines are too tough. ▪ Falcon Field will never be Scottsdale Airpark. It should take advantage of its niche position as a lower cost alternative.

Table 3 – Key Issues by Constituent Group	
Constituent Group	Key Issues Identified
Off Airport Businesses Group B	<ul style="list-style-type: none"> ▪ Lack of speculative buildings is a problem in this part of the city. Few prospects are looking to build to suit. ▪ Few businesses in the area actually use the airport and / or view it as a specific amenity. ▪ Large businesses looking at Mesa today would probably choose Williams Gateway. Our niche should be suppliers to existing businesses. ▪ Hanger space for businesses coming here would be a great incentive. ▪ Finding financing is always harder on leased land, but subordination of the lease is necessary to make such deals happen. ▪ Hotel with meeting space would be a good fit for the area. ▪ Restaurants for daytime population would make sense.

We were surprised by the number of comments received (from multiple groups) about a few issues in particular. First, the runway extension that was pursued in 1995. Many saw giving up that project as a real loss and detriment to the airport and the employment center. The longer runway would have been better able to accommodate larger aircraft (year round)² and would have created some safety benefits.

The development process in the city in general and on the airport in particular was also mentioned by a number of groups as being too long and costly, and in some cases capricious and unpredictable.

² Temperatures in the Phoenix-Mesa MSA are a specific concern with regard to aircraft take-offs for given runway lengths. Some larger planes are unable to use the airport when temperatures are high, or are unable to take off fully fueled, which significantly reduces their range before their next landing.

Appendix C - FALCON FIELD EMPLOYMENT CENTER CIP PROJECTS

CIP Projects Within Falcon Field Employment District

F	-020	01735	Public Safety Training Facility-Phased Improvements: Refurbish Burn Room
F	-023	01734	Public Safety Training Facility-Phased Improvements: Multi-purpose Buildings
F	-037	01918	Public Safety Training Academy: Defensive Tactics, Health and Safety Offices
F	-040	01733	Public Safety Training Facility – Phased Improvements: Special Operations and Training Office with adjoining classrooms.
FFA	-002	01485	Security Fencing, Phase 1
FFA	-007	01479	Falcon Field Terminal Building
FFA	-009	01484	Land Acquisition, 33 acres
FFA	-010	01493	Falcon Drive Underpass
FFA	-011	01494	Construct 4R Runup Area
FFA	-012	01490	Extend Taxilane B9 in new property
FFA	-013	01492	Falcon Field Master Plan Update
FFA	-014	01496	Construct Echo Apron
FFA	-015	01497	Construct Drainage Study Items - Phase 2&3
FFA	-017	01489	Grade, Drain, Surface Parking Area in New Property
FFA	-018	01491	MITL B-1 Taxiway
FFA	-020	01488	Pavement Preservation Program - ADOT IGA
FFA	-022	01480	Grade, Drain, Surface Hi-Speed Exits for Runway 4L- 22R
FFA	-023	01481	MITL for Hi-Speed Exits 4L-22R
FFA	-024	01486	Install MITL, B-7, B-8, B-9, B-10
FFA	-031	01882	Heliport Reconstruction
FFA	-034	02396	Security Fencing, Phase 2
FFA	-035	02397	Security Fencing, Phase 3
PR	-055	01808	Northeast Metro Park Development at Recker & Thomas
WT	-134	02212	Water Line from Falcon Well #2 to the Goldmar Irrigation Structure
WW	-068	02413	Upgrade Sunshine Acres Lift Station

Transportation

Project Detail

Falcon Field Airport

01-485

Security Fencing, Phase 1

FFA-002

Problem

The addition of a security fence is needed to adequately secure the airport property and to protect it from acts of vandalism. Perimeter fencing will be installed to preclude inadvertent entry of vehicles, pedestrians, and wildlife onto the airport runways and taxiways. This project is identified in the Falcon Field Airport Master Plan and is a part of a continuing effort to enhance the safety, utility, and quality of Falcon Field.

Solution

Install fence. A State Aviation grant will be used to fund 90% of the total cost of the project.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Design	\$16,000	\$0	\$0	\$0	\$0	\$0	\$16,000
8800	020	Construction	\$16,037	\$0	\$0	\$0	\$0	\$0	\$16,037
8800	SA	Construction	\$144,338	\$0	\$0	\$0	\$0	\$0	\$144,338
			\$176,375	\$0	\$0	\$0	\$0	\$0	\$176,375
Total (Non-Capital & Capital Costs)									
			\$176,375	\$0	\$0	\$0	\$0	\$0	\$176,375

Transportation

Project Detail

01-479

Falcon Field Terminal Building

FFA -007

Problem

The existing terminal is more than 30 years old and does not adequately serve the users of the airport.

Solution

The airport currently has a State grant that is funding 90% of the design cost. The design is expected to be complete by September 2005.

Program	Fund	Activity	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	Future	Totals
Capital Costs									
8800	020	Design	\$40,000	\$0	\$0	\$0	\$0	\$0	\$40,000
8800	SA	Design	\$360,000	\$0	\$0	\$0	\$0	\$0	\$360,000
8800	020	Construction	\$0	\$0	\$131,823	\$145,289	\$0	\$0	\$277,112
8800	SA	Construction	\$0	\$0	\$1,186,411	\$1,307,604	\$0	\$0	\$2,494,015
8800	020	Constr. Admin	\$0	\$0	\$26,896	\$0	\$0	\$0	\$26,896
8800	SA	Constr. Admin	\$0	\$0	\$242,064	\$0	\$0	\$0	\$242,064
			\$400,000	\$0	\$1,587,194	\$1,452,893	\$0	\$0	\$3,440,087
Total (Non-Capital & Capital Costs)									
			\$400,000	\$0	\$1,587,195	\$1,452,894	\$0	\$0	\$3,440,089

Transportation

Project Detail

01-484

Land Acquisition, 33 acres

FFA -009

Problem

This property is currently the only land not owned by the airport in the 1 mile square that the airport encompasses. The project will provide additional land for new airport related development. This project is identified in the Falcon Field Airport Master Plan and is a part of a continuing effort to enhance the safety, utility, and quality of Falcon Field.

Solution

Purchase Property. A Federal and State grant will be used to fund 95% of the total cost of the project.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Land Acquisition	\$1,341	\$154,978	\$0	\$0	\$0	\$0	\$156,319
8800	FA	Land Acquisition	\$27,318	\$3,157,107	\$0	\$0	\$0	\$0	\$3,184,425
8800	SA	Land Acquisition	\$1,341	\$154,978	\$0	\$0	\$0	\$0	\$156,319
			\$30,000	\$3,467,063	\$0	\$0	\$0	\$0	\$3,497,063
Total (Non-Capital & Capital Costs)									
			\$30,000	\$3,467,062	\$0	\$0	\$0	\$0	\$3,497,062

Transportation

Project Detail

01-493

Falcon Drive Underpass

FFA-010

Problem

Currently aircraft going from airside to landside on Taxiway B must cross Falcon Drive. This creates a potentially dangerous situation if vehicular traffic fails to yield to taxing aircraft. This project will provide a taxiway bridge for aircraft. This project is identified in the Falcon Field Airport Master Plan, and is a part of a continuing effort to enhance the safety, utility and quality of Falcon Field.

Solution

Install underpass. A Federal and State grant will be used to fund 95% of the total cost of the project.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Design	\$20,115	\$0	\$0	\$0	\$0	\$0	\$20,115
8800	FA	Design	\$409,770	\$0	\$0	\$0	\$0	\$0	\$409,770
8800	SA	Design	\$20,115	\$0	\$0	\$0	\$0	\$0	\$20,115
8800	020	Construction	\$0	\$225,422	\$0	\$0	\$0	\$0	\$225,422
8800	FA	Construction	\$0	\$4,592,156	\$0	\$0	\$0	\$0	\$4,592,156
8800	SA	Construction	\$0	\$225,422	\$0	\$0	\$0	\$0	\$225,422
			\$450,000	\$5,043,000	\$0	\$0	\$0	\$0	\$5,493,000
Total (Non-Capital & Capital Costs)									
			\$450,000	\$5,043,000	\$0	\$0	\$0	\$0	\$5,493,000

Transportation

Project Detail

01-494

Construct 4R Runup Area

FFA-011

Problem

This project will give the airport increased capacity for aircraft waiting to takeoff. This project is identified in the Falcon Field Airport Master Plan as a part of a continuing effort to enhance the safety, utility, and quality of Falcon Field.

Solution

Install runup area. A Federal and State Aviation grant will be used to fund 95% of the total cost of the project.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Design	\$0	\$8,405	\$0	\$0	\$0	\$0	\$8,405
8800	SA	Design	\$0	\$75,645	\$0	\$0	\$0	\$0	\$75,645
8800	020	Construction	\$0	\$0	\$29,076	\$0	\$0	\$0	\$29,076
8800	FA	Construction	\$0	\$0	\$587,982	\$0	\$0	\$0	\$587,982
8800	SA	Construction	\$0	\$0	\$29,076	\$0	\$0	\$0	\$29,076
			\$0	\$84,050	\$646,134	\$0	\$0	\$0	\$730,184
Total (Non-Capital & Capital Costs)									
			\$0	\$84,050	\$646,134	\$0	\$0	\$0	\$730,184

Transportation

Project Detail

01-490

Extend Taxilane B9 in new property

FFA-012

Problem

This project will provide aircraft access to this area by installing new taxi lanes. This project is identified in the Falcon Field Airport Master Plan and is a part of a continuing effort to enhance the safety, utility, and quality of Falcon Field.

Solution

Install taxi lanes. A Federal and State Aviation grant will be used to fund 95% of the total cost of this project.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Design	\$0	\$4,696	\$0	\$0	\$0	\$0	\$4,696
8800	FA	Design	\$0	\$95,670	\$0	\$0	\$0	\$0	\$95,670
8800	SA	Design	\$0	\$4,696	\$0	\$0	\$0	\$0	\$4,696
8800	020	Construction	\$0	\$0	\$18,533	\$0	\$0	\$0	\$18,533
8800	FA	Construction	\$0	\$0	\$377,558	\$0	\$0	\$0	\$377,558
8800	SA	Construction	\$0	\$0	\$18,533	\$0	\$0	\$0	\$18,533
8800	020	Constr. Admin	\$0	\$0	\$1,396	\$0	\$0	\$0	\$1,396
8800	FA	Constr. Admin	\$0	\$0	\$28,417	\$0	\$0	\$0	\$28,417
8800	SA	Constr. Admin	\$0	\$0	\$1,396	\$0	\$0	\$0	\$1,396
			\$0	\$105,062	\$445,833	\$0	\$0	\$0	\$550,895
Total (Non-Capital & Capital Costs)									
			\$0	\$105,062	\$445,833	\$0	\$0	\$0	\$550,895

Transportation

Project Detail

01-492

Falcon Field Master Plan Update

FFA-013

Problem

This project will update the existing Airport Master Plan that was completed in 1992.

Solution

Update Master Plan. A Federal and State Aviation grant will be used to fund 95% of the total cost of this project.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Pre-Design	\$17,880	\$0	\$0	\$0	\$0	\$0	\$17,880
8800	FA	Pre-Design	\$364,240	\$0	\$0	\$0	\$0	\$0	\$364,240
8800	SA	Pre-Design	\$17,880	\$0	\$0	\$0	\$0	\$0	\$17,880
			\$400,000	\$0	\$0	\$0	\$0	\$0	\$400,000
Total (Non-Capital & Capital Costs)									
			\$400,000	\$0	\$0	\$0	\$0	\$0	\$400,000

Transportation

Project Detail

01-496

Construct Echo Apron

FFA-014

Problem

This project will give the airport increased capacity for aircraft parking. This project is identified in the Falcon Field Airport Master Plan and is a part of a continuing effort to enhance the safety, utility, and quality of Falcon Field.

Solution

Install apron. Approximate quantity - 50,000 square yards. A State Aviation grant will be used to fund 90% of the total cost of this project.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Design	\$0	\$5,778	\$0	\$0	\$0	\$0	\$5,778
8800	SA	Design	\$0	\$52,006	\$0	\$0	\$0	\$0	\$52,006
8800	020	Construction	\$0	\$0	\$55,213	\$0	\$0	\$0	\$55,213
8800	SA	Construction	\$0	\$0	\$496,918	\$0	\$0	\$0	\$496,918
8800	020	Purchase	\$0	\$0	\$4,152	\$0	\$0	\$0	\$4,152
8800	SA	Constr. Admin	\$0	\$0	\$37,366	\$0	\$0	\$0	\$37,366
			\$0	\$57,784	\$593,649	\$0	\$0	\$0	\$651,433
Total (Non-Capital & Capital Costs)									
			\$0	\$57,784	\$593,649	\$0	\$0	\$0	\$651,433

Transportation

Project Detail

01-488

Pavement Preservation Program - ADOT IGA

FFA -020

Problem

Pavement preservation is a continuing effort to better the quality of the airport and its surfaces to ensure extended use of the pavement. This program will preserve the pavement as required by the ADOT-Managed Pavement Management Plan.

Solution

Fund the Pavement Preservation and Management Plan as managed and executed by ADOT.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	FA	Construction	\$120,000	\$0	\$0	\$0	\$0	\$0	\$120,000
8800	SA	Construction	\$40,000	\$0	\$0	\$0	\$0	\$0	\$40,000
8800	020	City Share	\$6,690	\$26,519	\$19,059	\$8,929	\$0	\$129,281	\$190,478
8800	SA	City Share	\$127,100	\$503,863	\$362,127	\$169,646	\$0	\$2,456,434	\$3,619,170
			\$293,790	\$530,382	\$381,186	\$178,575	\$0	\$2,585,715	\$3,969,648
Total (Non-Capital & Capital Costs)									
			\$293,790	\$530,382	\$381,186	\$178,575	\$0	\$2,585,714	\$3,969,647

Transportation

Project Detail

01-497

Construct Drainage Study Items - Phase 2&3

FFA-015

Problem

This project will provide onsite retention per the airport Master drainage plan. New storm drain lines and catch basins will be installed in the arterial streets to convey runoff from the streets for the 10-year storm event, and to carry bleed-off from retention basins to allow the basins to drain within the required 36-hour time limit. These projects are identified in the Falcon Field Airport Master Drainage Plan and are part of a continuing effort to enhance the safety, utility, and quality of Falcon Field.

Solution

Install drainage items. A Federal and State Aviation grant will be used to fund 95% of the total cost of the project.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Design	\$0	\$0	\$6,455	\$0	\$0	\$0	\$6,455
8800	SA	Design	\$0	\$0	\$58,095	\$0	\$0	\$0	\$58,095
8800	020	Construction	\$0	\$0	\$0	\$30,073	\$0	\$0	\$30,073
8800	FA	Construction	\$0	\$0	\$0	\$612,627	\$0	\$0	\$612,627
8800	SA	Construction	\$0	\$0	\$0	\$30,073	\$0	\$0	\$30,073
			\$0	\$0	\$64,550	\$672,773	\$0	\$0	\$737,323
Total (Non-Capital & Capital Costs)									
			\$0	\$0	\$64,550	\$672,774	\$0	\$0	\$737,324

Transportation

Project Detail

01-489

Grade, Drain, Surface Parking Area in New Property

FFA-017

Problem

This project will provide parking for airport users. This project is identified in the Falcon Field Airport Master Plan and is a part of a continuing effort to enhance the safety, utility, and quality of Falcon Field.

Solution

Install parking area-- approx. 12,700 square yards. A State Aviation grant will be used to fund 90% of the total cost of this project.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Construction	\$0	\$0	\$0	\$41,393	\$0	\$0	\$41,393
8800	SA	Construction	\$0	\$0	\$0	\$372,537	\$0	\$0	\$372,537
8800	020	Constr. Admin	\$0	\$0	\$0	\$1,961	\$0	\$0	\$1,961
8800	SA	Constr. Admin	\$0	\$0	\$0	\$17,646	\$0	\$0	\$17,646
			\$0	\$0	\$0	\$433,537	\$0	\$0	\$433,537
Total (Non-Capital & Capital Costs)									
			\$0	\$0	\$0	\$433,536	\$0	\$0	\$433,536

Transportation

Project Detail

01-491

MITL B-1 Taxiway

FFA-018

Problem

This project will provide taxiway lights for taxiway B-1. This project is identified in the Falcon Field Airport Master Plan and is a part of a continuing effort to enhance the safety, utility, and quality of Falcon Field.

Solution

Install taxiway lights. A Federal and State Aviation grant will be used to fund 95% of the total cost of this project.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Design	\$0	\$0	\$320	\$0	\$0	\$0	\$320
8800	FA	Design	\$0	\$0	\$6,506	\$0	\$0	\$0	\$6,506
8800	SA	Design	\$0	\$0	\$320	\$0	\$0	\$0	\$320
8800	020	Construction	\$0	\$0	\$4,247	\$0	\$0	\$0	\$4,247
8800	FA	Construction	\$0	\$0	\$86,524	\$0	\$0	\$0	\$86,524
8800	SA	Construction	\$0	\$0	\$4,247	\$0	\$0	\$0	\$4,247
			\$0	\$0	\$102,164	\$0	\$0	\$0	\$102,164
Total (Non-Capital & Capital Costs)									
			\$0	\$0	\$102,163	\$0	\$0	\$0	\$102,163

Transportation

Project Detail

01-480

Grade, Drain, Surface Hi-Speed Exits for Runway 4L- 22R

FFA -022

Problem

Runway 4L-22R only has three exits off the runway limiting capacity and runway utilization. This project is identified in the Falcon Field Airport Master Plan and is a part of a continuing effort to enhance the safety, utility, and quality of Falcon Field.

Solution

The high-speed exits will provide two additional exits increasing runway capacity and utilization. A Federal and State Aviation grant will be used to fund 95% of the total cost of the project.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Design	\$0	\$0	\$5,379	\$0	\$0	\$0	\$5,379
8800	SA	Design	\$0	\$0	\$102,205	\$0	\$0	\$0	\$102,205
8800	020	Construction	\$0	\$0	\$0	\$43,391	\$0	\$0	\$43,391
8800	FA	Construction	\$0	\$0	\$0	\$883,922	\$0	\$0	\$883,922
8800	SA	Construction	\$0	\$0	\$0	\$43,391	\$0	\$0	\$43,391
8800	020	Constr. Admin	\$0	\$0	\$0	\$3,264	\$0	\$0	\$3,264
8800	FA	Constr. Admin	\$0	\$0	\$0	\$66,462	\$0	\$0	\$66,462
8800	SA	Constr. Admin	\$0	\$0	\$0	\$3,264	\$0	\$0	\$3,264
			\$0	\$0	\$107,584	\$1,043,694	\$0	\$0	\$1,151,278
Total (Non-Capital & Capital Costs)									
			\$0	\$0	\$107,584	\$1,043,694	\$0	\$0	\$1,151,278

Transportation

Project Detail

01-481

MITL for Hi-Speed Exits 4L-22R

FFA-023

Problem

This project will provide lighting for the high-speed exits on runway 4L-22R. This project is identified in the Falcon Field Airport Master Plan and are part of a continuing effort to enhance the safety, utility, and quality of Falcon Field.

Solution

Install taxiway lights. A Federal and State Aviation grant will be used to fund 95% of the total cost of the project

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Construction	\$0	\$0	\$0	\$6,607	\$0	\$0	\$6,607
8800	FA	Construction	\$0	\$0	\$0	\$134,608	\$0	\$0	\$134,608
8800	SA	Construction	\$0	\$0	\$0	\$6,607	\$0	\$0	\$6,607
8800	020	Constr. Admin	\$0	\$0	\$0	\$497	\$0	\$0	\$497
8800	FA	Constr. Admin	\$0	\$0	\$0	\$10,122	\$0	\$0	\$10,122
8800	SA	Constr. Admin	\$0	\$0	\$0	\$496	\$0	\$0	\$496
			\$0	\$0	\$0	\$158,937	\$0	\$0	\$158,937
Total (Non-Capital & Capital Costs)									
			\$0	\$0	\$0	\$158,938	\$0	\$0	\$158,938

Transportation

Project Detail

01-486

Install MITL, B-7, B-8, B-9, B-10

FFA -024

Problem

This project will provide lighting for taxi lanes B7-B10. This project is identified in the Falcon Field Airport Master Plan and is a part of a continuing effort to enhance the safety, utility, and quality of Falcon Field.

Solution

Install taxi lane lighting as required. A Federal and State Aviation grant will be used to fund 95% of the total cost of this project

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Construction	\$0	\$0	\$0	\$20,242	\$0	\$0	\$20,242
8800	FA	Construction	\$0	\$0	\$0	\$412,347	\$0	\$0	\$412,347
8800	SA	Construction	\$0	\$0	\$0	\$20,242	\$0	\$0	\$20,242
8800	020	Constr. Admin	\$0	\$0	\$0	\$1,522	\$0	\$0	\$1,522
8800	FA	Constr. Admin	\$0	\$0	\$0	\$31,007	\$0	\$0	\$31,007
8800	SA	Constr. Admin	\$0	\$0	\$0	\$1,522	\$0	\$0	\$1,522
			\$0	\$0	\$0	\$486,882	\$0	\$0	\$486,882
Total (Non-Capital & Capital Costs)									
			\$0	\$0	\$0	\$486,881	\$0	\$0	\$486,881

Transportation

Project Detail

01-882

Heliport Reconstruction

FFA -031

Problem

The helicopter landing pads at Falcon Field are exhibiting signs of structural distress such as fatigue cracking and medium rutting.

Solution

Reconstruct helicopter landing pads. This project will be funded with 90% with a State Aviation Grant.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Design	\$0	\$0	\$0	\$0	\$594	\$0	\$594
8800	SA	Design	\$0	\$0	\$0	\$0	\$5,346	\$0	\$5,346
8800	020	Construction	\$0	\$0	\$0	\$0	\$7,892	\$0	\$7,892
8800	SA	Construction	\$0	\$0	\$0	\$0	\$71,024	\$0	\$71,024
			\$0	\$0	\$0	\$0	\$84,856	\$0	\$84,856
Total (Non-Capital & Capital Costs)									
			\$0	\$0	\$0	\$0	\$84,856	\$0	\$84,856

Transportation

Project Detail

02-396

Security Fencing, Phase 2

FFA -034

Problem

The addition of a security fence is needed to adequately secure the airport property and to protect it from acts of vandalism. Security fencing will be installed to preclude inadvertent entry of vehicles, pedestrians, and wildlife onto the airport runways and taxiways. This project is identified in the Falcon Field Airport Master Plan and is a part of a continuing effort to enhance the safety, utility, and quality of Falcon Field.

Solution

Install fence. A State Aviation grant will be used to fund 90% of the total cost of the project.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Construction	\$18,000	\$0	\$0	\$0	\$0	\$0	\$18,000
8800	SA	Construction	\$162,000	\$0	\$0	\$0	\$0	\$0	\$162,000
			\$180,000	\$0	\$0	\$0	\$0	\$0	\$180,000
Total (Non-Capital & Capital Costs)									
			\$180,000	\$0	\$0	\$0	\$0	\$0	\$180,000

Transportation

Project Detail

02-397

Security Fencing, Phase 3

FFA-035

Problem

The addition of a security fence is needed to adequately secure the airport property and to protect it from acts of vandalism. Perimeter fencing will be installed to preclude inadvertent entry of vehicles, pedestrians, and wildlife onto the airport runways and taxiways. This project is identified in the Falcon Field Airport Master Plan and is a part of a continuing effort to enhance the safety, utility, and quality of Falcon Field.

Solution

Install fence. A State Aviation grant will be used to fund 90% of the total cost of the project.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
8800	020	Construction	\$25,000	\$0	\$0	\$0	\$0	\$0	\$25,000
8800	SA	Construction	\$225,000	\$0	\$0	\$0	\$0	\$0	\$225,000
			\$250,000	\$0	\$0	\$0	\$0	\$0	\$250,000
Total (Non-Capital & Capital Costs)									
			\$250,000	\$0	\$0	\$0	\$0	\$0	\$250,000

Public Safety

Project Detail

01-735

Public Safety Training Facility-Phased Improvements: Refurbish Burn Room

F-020

Problem

Planned phase improvements at Police/Fire Training Facility. This is an ongoing project to improve the facility at 40th Street locations.

Solution

Upgrade interior surface of burn building to control structural degradation from repeated exposure to high temperatures. Convert to natural gas to facilitate a more controlled and safe atmosphere. This natural gas system will also allow training activities to be conducted on high pollution "No Burn" days. Design and construct an addition to allow for greater area needs.

Program	Fund	Activity	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	Future	Totals
Capital Costs									
9600	G6	Construction	\$510,000	\$357,213	\$0	\$0	\$0	\$0	\$867,213
			\$510,000	\$357,213	\$0	\$0	\$0	\$0	\$867,213
Total (Non-Capital & Capital Costs)									
			\$510,000	\$357,213	\$0	\$0	\$0	\$0	\$867,213
Operations & Maint Costs									
6100	010	Other Services	\$14,160	\$14,877	\$15,234	\$15,615	\$16,005		
			\$14,160	\$14,877	\$15,234	\$15,615	\$16,005		

Public Safety

Project Detail

01-734

Public Safety Training Facility-Phased Improvements: Multi-purpose Buildings

F-023

Problem

Planned phased improvements at Police/Fire Training Facility. This is an ongoing project to improve and expand the facility at 40th Street location.

Solution

Streets, sidewalks, and landscape for village and fire prop area. This will support subsequent expansion of the facility to accommodate a mock community used for a myriad of training scenarios including police-based domestic dispute training, hostage-recovery training, search and seizure training. Also included are fire-based training programs such as mass casualty training, firefighter safety and survivability training, property conservation training, and incident command training among other training programs. Village infrastructure will include streets and curbing, water distribution and recovery system (for aggressive water-conservation), electrical distribution, natural gas distribution, and sewage/run-off.

Project 4 & 5-Complete multi-purpose village: buildings; mini-market/bank, strip mall with sprinkler/hood system, lab and ventilation prop; service station façade with roll-up doors for storage and maintenance of Police Department track cars. Ramada and restrooms to facilitate practical skills area of the facility. Completion of Fire Training props, training prop control and storage observation deck.

Program	Fund	Activity	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	Future	Totals
Capital Costs									
9600	G6	Design	\$0	\$0	\$0	\$0	\$370,740	\$0	\$370,740
9600	G6	Construction	\$0	\$0	\$0	\$0	\$0	\$3,799,847	\$3,799,847
9600	G6	ISD	\$0	\$0	\$0	\$0	\$0	\$208,745	\$208,745
			\$0	\$0	\$0	\$0	\$370,740	\$4,008,592	\$4,379,332
Total (Non-Capital & Capital Costs)									
			\$0	\$0	\$0	\$0	\$370,740	\$4,008,592	\$4,379,332
Operations & Maint Costs									
6100	010	Other Services	\$0	\$0	\$0	\$0	\$0		
			\$0	\$0	\$0	\$0	\$0		

Public Safety

Project Detail

01-918

Public Safety Training Academy: Defensive Tactics, Health and Safety Offices

F-037

Problem

Planned phased improvements at Police/Fire Training Facility

The defensive tactics, health and safety offices are currently conducted in the garage area of the Fire Training facility. This arrangement necessitates vehicle relocation to use the space and exposes participants to diesel exhaust and vehicle fluids. The training academy needs a tactics and health facility for police/fire recruits and incumbents.

Solution

Construct a facility with instructional space, employee services restrooms, showers, lockers and dressing rooms, evaluation areas for health and safety and defensive tactic props.

Program	Fund	Activity	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	Future	Totals
Capital Costs									
9600	G6	Design	\$0	\$0	\$0	\$0	\$224,931	\$0	\$224,931
9600	G6	Construction	\$0	\$0	\$0	\$0	\$0	\$2,077,011	\$2,077,011
9600	G6	Purchase	\$0	\$0	\$0	\$0	\$0	\$67,262	\$67,262
9600	G6	ISD	\$0	\$0	\$0	\$0	\$0	\$75,380	\$75,380
			\$0	\$0	\$0	\$0	\$224,931	\$2,219,653	\$2,444,584
Total (Non-Capital & Capital Costs)									
			\$0	\$0	\$0	\$0	\$224,931	\$2,219,653	\$2,444,584
Operations & Maint Costs									
6300	010	Other Services	\$0	\$0	\$0	\$0	\$0		
6300	010	Commodities	\$0	\$0	\$0	\$0	\$0		
			\$0	\$0	\$0	\$0	\$0		

Public Safety

Project Detail

01-733

Public Safety Training Facility – Phased Improvements: Special Operations and Training Office with adjoining classrooms.

F-040

Problem

Planned phased improvements at Police/Fire Training Facility. Currently there are no dedicated classrooms to support Special Operations or command/operations simulation training. Additionally, the current office configuration does not allow for staffing levels identified in this section's Five Year Strategic Plan. The growth of Police Training and the projected growth in Fire Training are not supported by the current building configuration. This is an ongoing project to improve and expand the facility at 40th Street location.

Solution

Project 3 – Office space sufficient to accommodate staffing levels set forth in Special Operations and Training's Five Year Strategic Plan (2002-2007) with adjoining classrooms dedicated to Special Operations and simulation training. These classrooms will include virtual reality training hardware and software capable of simulating dynamic real-time emergency scenes, driving simulation, and confrontation scenarios. This will include video simulation, radio communication integration, and audio-video recording of participant performance. With this technology, Fire and Police Personnel will be able to manage mock-emergency incidents at real City of Mesa structures and community areas. All classrooms will be electronically connected to allow for interoperability during simulations of mock disasters on a large scale. This facility would be available for citywide training on emergency Operations Center and Incident Command procedures. This is will also include restrooms, storage, large break room with kitchen.

Program	Fund	Activity	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	Future	Totals
Capital Costs									
9600	G6	Design	\$0	\$0	\$279,992	\$0	\$0	\$0	\$279,992
9600	G6	Construction	\$0	\$0	\$0	\$2,665,708	\$0	\$0	\$2,665,708
9600	G6	ISD	\$0	\$0	\$0	\$137,977	\$0	\$0	\$137,977
			\$0	\$0	\$279,992	\$2,803,685	\$0	\$0	\$3,083,677
Total (Non-Capital & Capital Costs)									
			\$0	\$0	\$279,992	\$2,803,685	\$0	\$0	\$3,083,677
Operations & Maint Costs									
6100	010	Other Services	\$0	\$0	\$0	\$56,885	\$58,307		
			\$0	\$0	\$0	\$56,885	\$58,307		

Parks - Recreation, Library, Arts - Cultural

*Project Detail***01-808**

Northeast Metro Park Development at Recker & Thomas

PR -055*Problem*

To develop 132 acres of area at Recker & Thomas into a park while preserving desert environment. This project is part of the recommendations outlined by the Parks and Recreation Master Plan 2025, adopted by the City Council and Mesa residents in 2002. The Master Plan outlines the target need areas and projected growth for the City of Mesa and this project will help meet the service needs of our residents.

Solution

Design will include large group picnic areas for corporate picnics, play areas, parking, area lighting, landscaping and trail development. Facility may include baseball/softball fields with lighting for youth use. Final design will be dictated by public input process.

<i>Program</i>	<i>Fund</i>	<i>Activity</i>	<i>FY 04/05</i>	<i>FY 05/06</i>	<i>FY 06/07</i>	<i>FY 07/08</i>	<i>FY 08/09</i>	<i>Future</i>	<i>Totals</i>
Capital Costs									
9750	G20	Design	\$0	\$0	\$1,183,424	\$0	\$0	\$0	\$1,183,424
9750	G20	Construction	\$0	\$0	\$0	\$5,519,064	\$6,950,348	\$0	\$12,469,412
			\$0	\$0	\$1,183,424	\$5,519,064	\$6,950,348	\$0	\$13,652,836
Total (Non-Capital & Capital Costs)									
			\$0	\$0	\$1,183,424	\$5,519,064	\$6,950,348	\$0	\$13,652,836
Operations & Maint Costs									
7200	010	Personal Service	\$0	\$0	\$0	\$0	\$0		
7200	010	Other Services	\$0	\$0	\$0	\$0	\$230,582		
7200	010	Commodities	\$0	\$0	\$0	\$0	\$20,752		
			\$0	\$0	\$0	\$0	\$251,334		

Problem

An agreement has been made between Sunshine Acres Boys' Home, Boeing, and the City to upgrade Sunshine Acres Lift Station. Boeing and the city will each pay half of the capital costs and then turn the lift station over to Sunshine Acres to maintain. Work must be completed by summer 2003 to coincide with Longbow development construction.

Solution

Upgrade Lift Station

Program	Fund	Activity	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	Future	Totals
Capital Costs									
9500	UR	Construction	\$77,000	\$0	\$0	\$0	\$0	\$0	\$77,000
			\$77,000	\$0	\$0	\$0	\$0	\$0	\$77,000
Total (Non-Capital & Capital Costs)									
			\$77,000	\$0	\$0	\$0	\$0	\$0	\$77,000

Problem

Goldmar Well customers are using potable water to irrigate their citrus groves.

Solution

By transferring the customers to the Falcon#2 well, we will be utilizing a well that is presently inactive and contains chemicals once used for citrus trees. Falcon #2 cannot be used in the potable system without the expensive use of carbon towers, therefore this well is suited for use by citrus growers. Therefore, Utilities proposes to design and construct a pipeline to Falcon Well #2 by extending this new pipeline along McKellips Road to Greenfield Road, then north on Greenfield to the Goldmar Well site at the southwest corner of Greenfield and McDowell Road. Remove the tie to our potable system at the well and replace it with a connection to this Falcon Well.

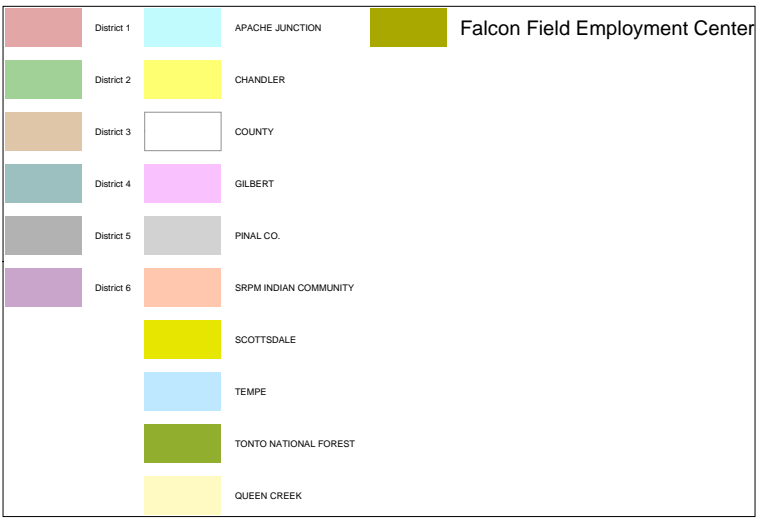
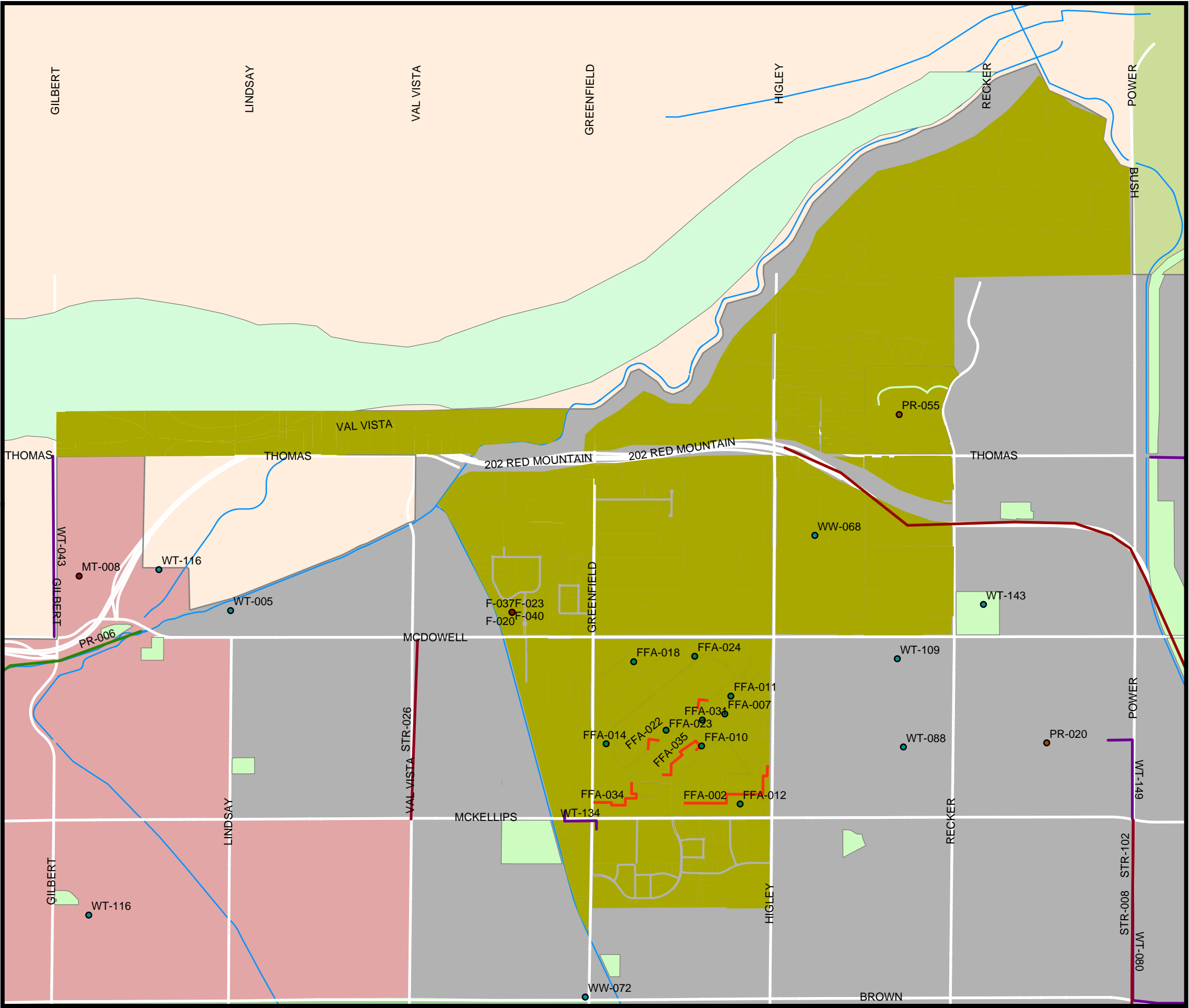
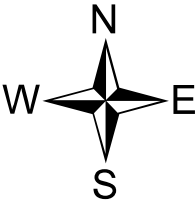
Program	Fund	Activity	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	Future	Totals
Capital Costs									
9400	UR	Construction	\$539,320	\$0	\$0	\$0	\$0	\$0	\$539,320
9400	UR	Constr. Admin	\$16,680	\$0	\$0	\$0	\$0	\$0	\$16,680
			\$556,000	\$0	\$0	\$0	\$0	\$0	\$556,000
Total (Non-Capital & Capital Costs)									
			\$556,000	\$0	\$0	\$0	\$0	\$0	\$556,000



City of Mesa
Capital Improvement Program
FY 2004 - 2009

CIP PROJECTS WITHIN FALCON FIELD
EMPLOYMENT CENTER

Reference #	Program
F-#	Fire Safety Project
FFA-#	Falcon Field Project
PR-#	Parks and Recreation Project
STR-#	Street Project
WT-#	Water Project
WW-#	Wastewater Project



Appendix D - TARGETED INDUSTRY ANALYSIS

TARGETED INDUSTRY ANALYSIS

Targeted industries for the Falcon Field Employment Center were identified through a process that began with an analysis of industry employment trends and wage data for the Phoenix-Mesa MSA and the United States.

Recent changes in industry classification systems (with different timeframes for different government agencies) provided a host of complications in this analysis. From 1987 until the late 1990's industries were classified using the Standard Industrial Classification (SIC Code) system by both the Bureau of the Census and the Bureau of Labor Statistics. While it was technically possible for a given business to be classified differently in the data collection of these two agencies (due to government data sharing laws these agencies have been required to maintain separate databases) substantive divergence was not apparent to data users.

Changes in industrial activity, including the emergence of internet companies such as ISP's that were not even conceptualized in the design of the SIC Code system, drove the movement for a new industrial classification system. The new system is generally referred to as the North American Industrial Classification System (NAICS Codes), but in reality reflects two separate adjustments to the coding system. The first was implemented by the Bureau of the Census in the mid-1990's (1997 NAICS hereafter) and another was implemented by the Bureau of Labor Statistics in the late 1990's (2002 NAICS hereafter).

The Bureau of the Census conversion from SIC Codes to NAICS Codes was supported by the 1997 Economic Census. National data from the 1997 Economic Census was published both on an SIC Code and 1997 NAICS Code basis. Though this created a few disclosure issues,³ it was essentially possible to create a spreadsheet model crosswalk, based (individually) on establishments, employment, wages, and sales in order to allocate total activity by SIC Code across the 1997 NAICS Codes in which it is now classified. Additional changes to the NAICS Code system have necessitated the conversion from 1997 NAICS to 2002 NAICS; at which point both agencies will be again using the same industry classification system.

The Bureau of Labor Statistics did not make a conversion from SIC Codes to 1997 NAICS Codes, instead converting directly to 2002 NAICS Codes (beginning with 2001 data). Unfortunately, this data conversion by the Bureau of Labor Statistics is

³ The Bureau of the Census is precluded by law from publishing data which would be likely to lead to the identification of data concerning an individual person or company. "Cutting" the data multiple ways (where parts of two SIC Codes correspond with parts of two NAICS Codes for example) make disclosure concerns slightly more likely. Establishment data is generally suppressed where less than three companies make up the total. Where detail data is suppressed it is still included at higher summary levels.

not supported by a SIC to 2002 NAICS correlation with data of sufficient detail to make quantitative conversions. A table of national data showing percentage of employment in a given SIC as compared to corresponding 2002 NAICS Code was prepared, but in addition to the incompleteness of such a conversion tool for our purposes the table does not represent a full bridge. Thus the use of this partial bridge would have resulted in a loss of data (total employment by SIC or 1997 NAICS would not sum to total employment by 2002 NAICS). Many, but not all, differences between the 1997 and 2002 NAICS systems did involve reclassification of whole NAICS to whole NAICS.

One other issue important in the use of these various data sets is hierarchy. The SIC Code system is a fully hierarchical one, with additional digits of an SIC Code providing additional detail. Four digit SIC Codes are the industry standard that combines a level of detail needed to be useful with consideration for disclosure concerns. NAICS Codes (both 1997 and 2002) are mostly hierarchical, with the first five digits being “required” and a sixth one optional.⁴ Correlation between the systems takes place at this level of detail.

The data set used in this targeted industry analysis was based on data generated by the Bureau of Labor Statistics, called the Quarterly Census of Employment and Wages (QCEW) also commonly referred to as ES-202 data. This data set was also called Covered Employment and Wages (CEW) for a short time in 2001 and 2002. This data set covers employers subject to funding unemployment insurance and excludes a few major groups:

- State and local government workers
- Railroad employees
- Self employed workers
- Domestic workers
- Wage and salary agricultural workers
- Some non-profit organizations⁵

The actual data sets used were procured from the Minnesota IMPLAN group, a company that has developed an economic impact modeling system and various data sets. The company uses a proprietary methodology to estimate suppressed line items within the data, but in terms of industry classification system was limited by the underlying data collected by the Bureau of Labor Statistics. Thus, data for 1999 was classified by SIC Code and data for 2001 was classified by 2002 NAICS Code. Since no full crosswalk exists between SIC and 2002 NAICS, we were left with the more limited conversion (from a trends standpoint) of SIC to 1997 NAICS for 1999

⁴ The sixth digit is set aside for more detailed definitions within a five digit industry at the discretion of each of the three countries (United States, Canada, and Mexico) individually as needed to monitor their individual economies.

⁵ State laws differ somewhat on the handling of these sorts of workers, but generally allow them to be included or not at the company's choice.

data and no alteration to 2002 NAICS data. More than 900 individual NAICS Codes were matched for this analysis. Following the release of 2002 Economic Census data, expected in early 2005, it is likely that a reclassification bridge similar to what was produced in 1997 for SIC to 1997 NAICS conversion will be available depending on agency funding.

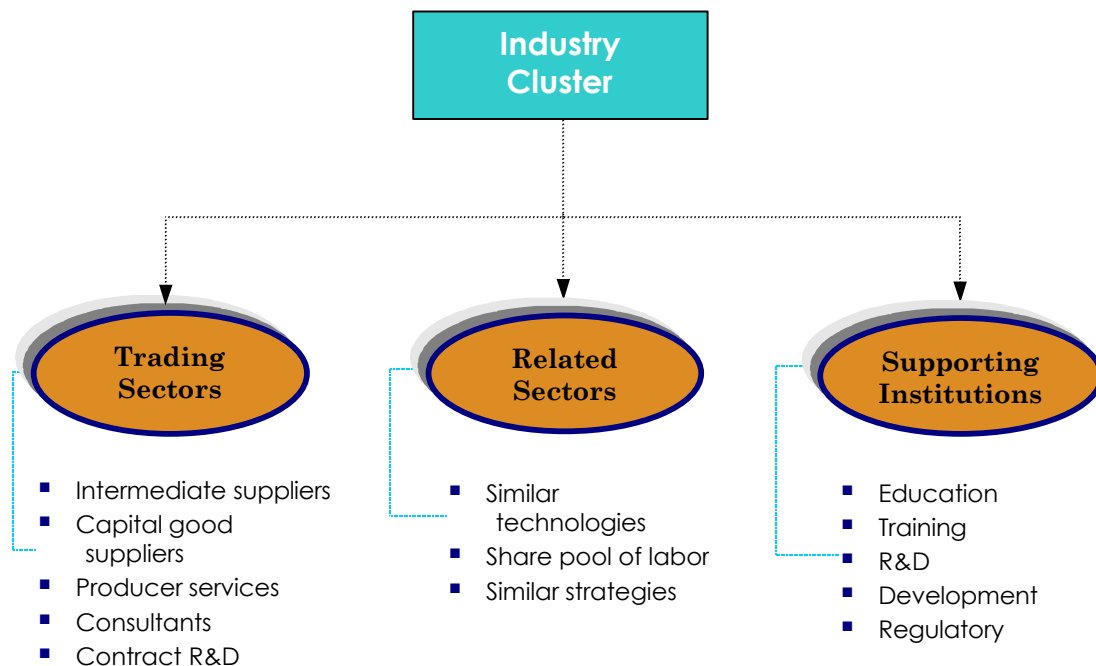
The industries were then subject to a screening process which was used to identify industries with:

- Above average wages
- Above average growth trends
- A high relative concentration in the region⁶

This quantitative industry analysis resulted in a list of NAICS Codes associated with industries that would make suitable potential targets for Mesa.

These industries were then classified into distinct industry clusters. Industry clusters represent related industries (related at a minimum buyer and supplier linkages). As shown on Chart 1, the concept of industry clusters **can** be expanded to consider other factors such as a similar labor pool and shared use of education and training programs.

Chart 1 – Components of an Industry Cluster



Source: "Industrial and Regional Clusters: Concepts and Comparative Applications"

⁶ As defined by the location quotient (LQ). The LQ is a measure of an industry's relative concentration in a given area relative to the concentration of that industry in the nation as a whole. An LQ of greater than 1.00 indicates an above average concentration of that particular industry in the region.

The classification of the industries identified as targets into industry clusters was performed using a database of major employers provided by the Maricopa Association of Governments (MAG). This database includes SIC and NAICS classifications of existing businesses in Maricopa County (with five or more employees) as well as classifying each company into one industry cluster. Though not all database records had SIC and NAICS Codes, and SIC and NAICS Codes were not **required** to be universally classified in one cluster during the development of the database by MAG, we were able to develop a correspondence of NAICS Codes into industry clusters using the most typical cluster classification of each NAICS. The consumer industry cluster (which is local serving driven by general population growth rather than being “recruitable” per se) was excluded from the list of targets provided in the document. The Aerospace and Aviation cluster list provided in the report includes industries not meeting all the screening criteria, but sorted by the number of criteria which were met. Industries meeting three or four of the criteria are shown in **bold**.

Appendix E - FAA PROPERTY RELEASE INSTRUCTIONS

**FAA Western-Pacific Region
Release of Airport Property from Federal Obligations
Instructions for Applying for a Land Release**

Introduction

This guidance provides instructions to airport sponsors who wish to apply for a release from the terms, conditions, reservations, or restrictions contained in a conveyance deed and/or the assurances in a grant agreement that requires an airport sponsor to use real or personal property for public airport purposes. FAA Western-Pacific Region (AWP) prepared this guidance to provide step-by-step instructions for the preparation of a release request package.

Purpose

This guidance was prepared to:

- a) Guide airport sponsors through the time-consuming release process.
- b) Create a series of progressive steps for evaluating the merits of a release request so scarce resources are well allocated.
- c) Determine as quickly as possible whether a release request is justified and legally sufficient.
- d) Provide instructions for preparing a complete and persuasive release request package for those releases that comply with regulatory requirements.
- e) Ensure that the release request is legally sufficient before notice of the proposed release is published in the Federal Register for public comment.

Background

U.S. Code 47153 authorizes the Federal Aviation Administration to release airport land when it is convincingly clear that:

- a) Airport property no longer serves the purpose for which it was conveyed. In other words, the airport does not need the land now or in the future because it has no airport, airport-related or aeronautical use, nor does it serve as approach protection, a compatible land use, or a noise buffer zone, etc.
- b) The release will not prevent the airport from carrying out the purpose for which the land was conveyed. In other words, the airport will not experience any negative impact from relinquishing the land or the land is so remote from the airport operations area that it cannot conceivably be used for an airport, airport-related, or aeronautical purpose.
- c) The release is actually necessary to advance the civil aviation interests of the country. In other words, there is a measurable and tangible benefit for the airport or the airport system. The release of the land is expected to produce an objective and measurable benefit which will exceed the value of the land as part of the airport.

FAA Order 5190.6A, Airport Compliance Requirements, Chapter 7, provides policy guidance that must be followed in order to release airport property from federal obligations that require it to be used for airport purposes.

The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181, April 5, 2000) established a public notice requirement. Before the FAA can waive any airport land-use obligation by approving a release, the FAA must publish a public notice in the Federal Register and provide a period of 30 days for public comment so public input may be considered in arriving at the final release determination.

Caveat: Proposals to Reuse Released Land of an Aviation Purpose

All requests for a release, at the very minimum, must meet the standards specified in the U.S. Code and FAA Order. Based on those standards, land may be released only when it has been clearly demonstrated that the land no longer has an airport purpose. Land cannot be released if it still has some aviation or airport utility. If an airport sponsor asks for a release that proposes to use the land for any kind of airport-related purpose, it must be understood that such a proposal lacks legal sufficiency and cannot be approved. The FAA does not have authority to approve a release for the sale of airport land if the purpose of the release is to permit a third party to acquire the land to operate an aviation-related activity. An airport sponsor should not purport that airport land is not needed for airport purposes if the intent of the release is to allow a buyer to establish some kind of aviation enterprise on the released land. A proposal to use released land for an aviation purpose clearly demonstrates that the land is needed for airport purposes. The FAA cannot consent to a release when the airport sponsor intends to dispose of the land for any airport or aviation-related purpose. Under such circumstances, a release is not legally sufficient.

Instructions for Requesting a Release

The release process has been divided into three parts that are called the Preparatory Discussion, Preliminary Assessment, and the Formal Request. The three-step process is meant to streamline the release procedures and concentrate the work effort only on legally sufficient requests.

Step 1 - Preparatory Discussion

The purpose of the preparatory discussion is to introduce the release proposal to AWP and permit AWP to gauge its merits. The airport sponsor should discuss a release proposal with the AWP Project Engineer and Airports Compliance Specialist before submitting anything in writing. The airport sponsor can determine if the release appears to have merit and obtain instructions for submitting a release request in accordance with

this AWP guidance. Following the discussions, if the proposed release request appears to have merit and appears to comply with the regulatory requirements, the airport sponsor will be advised to proceed with Step 2. Otherwise, the deficiencies of the request will be explained to clarify why the FAA does not support the proposed release.

Step 2 - Preliminary Assessment

The purpose of the preliminary assessment is to give the AWP staff an opportunity to review your request in writing to determine if the request meets the relevant release criteria and regulatory requirements. The preliminary assessment begins by submitting a letter, along with an airport map, to AWP that describes and justifies the release request.

To initiate the preliminary assessment, prepare and submit a letter to the FAA that answers the questions listed in the section below labeled ***Content of the Request for Release***. The purpose of Step 2 is to give AWP enough information to evaluate the merits of your request. Step 2 does not require you to assemble a complete release package. For Step 2, do the following:

- a) Prepare a letter with a brief but complete answer to each of the twelve questions in the *Content of the Request for Release* section.
- b) With the letter, include an airport map, graphic, and/or airport layout plan that clearly depict the airport and the location of the land for which the release is being sought.
- c) Do not submit any other documentation with your preliminary letter describing the release proposal. This will be done in Step 3 as part of the complete release package.

The FAA will evaluate the release proposal and provide feedback. If needed, the FAA will request additional information. Once the informal assessment is concluded, the FAA will provide the sponsor with an opinion. The opinion will state whether or not the release request complies with the regulatory requirements.

Initial Disapproval: If the release request does not meet regulatory requirements, the FAA will inform the sponsor that the release is disapproved.

Preliminary Approval: If the release appears to meet all regulatory requirements, the FAA will instruct the sponsor to go to Step 3 and submit a complete release request package.

Step 3 - Content of the Formal Request

The purpose of the Formal Request section is to provide instructions for completing a formal release request package that AWP will use to process the request and approve the release if it meets all regulatory and public disclosure requirements. The formal request step begins by assembling a formal release request package. Using the instructions in the section below labeled ***Content of the Request for Release***, the airport sponsor will

assemble a complete package that includes all the requested information, documentation, and supporting justification.

Caveat: The Release Request Package Must Be Complete

It is important for the airport sponsor to be thorough in preparing the request. AWP will not be able to process and approve a release unless the airport sponsor provides all required information so that the package is complete. Please remember that the release request must not only satisfy regulatory requirements but must be available for public examination once the release notice is published in the Federal Register. AWP will guide the airport sponsor through the release process and notify the airport sponsor whenever additional information is needed. However, it is the airport sponsor's responsibility to provide all the required information so AWP can successfully process the release.

Content of the Release Request

For Step 2: If you are just beginning Step 2, you only have to answer the following 12 questions in a letter and submit it to AWP with an airport map. Other documents identified below are not needed for Step 2.)

For Step 3: The release request must contain the following information and all supporting documents:

Request Format

1. Information can be provided in a letter or in a report format.
2. Items of information should be organized in separate sections in the letter or report. Each section should be numbered and identified with the appropriate heading.
3. Supporting documents should be attached as exhibits to the letter or report.
4. The exhibits should be referenced in the body of the letter or report and each exhibit should be numbered or lettered sequentially.
5. Certain information will be transmitted to AWP as a computer file, preferably in Microsoft Word format. Specifically, the draft instrument of release and draft Federal Register notice will be transmitted to AWP electronically or on a diskette.

Required Information

1. Obligor Conveyance Instrument or Grant

Identify the instruments of disposal by which the airport land was conveyed to the airport sponsor/owner (for example, quitclaim deed, patent, warrant, deed, etc.). If the land is obligated by FAA grants, identify the grant agreements.

- a) Provide a legible copy of the disposal instrument as an exhibit.

2. Property Description

a) Provide a legal description of the land to be released. This is mandatory because it will have to be included in the instrument of release.

b) Provide a general description of the property. For example, how is it being used? Where is it located? What is its intended future use? Does it generate income? What is the highest and best use of the land?

3. Property Condition

Describe the condition of the property you wish to release. For example, is it presently improved or unimproved land? Can the land be improved? By whom? Does the land have basic utilities (sewer, water, power)? Are there environmental or topographical constraints? Is it contiguous to or separated from the airport proper?

4. Federal Obligations

Describe the purpose for which the land was conveyed to the airport sponsor/owner. For example, was it conveyed for airport purposes? Revenue production from non-aeronautical use? Approach protection? Compatible land use or sound mitigation? Airport expansion or runway extension?

5. Kind of Release

Describe the kind of release that is sought. For example, is the release to waive all deed and assurance obligations? Usually, releases are sought to eliminate all obligations that require land to be used for airport purposes. Airport sponsors sometimes request a limited release from a specific covenant in a deed such as the emergency use provision.

6. Purpose of the Release

Describe the purpose of the release. For example, is it to sell the land? Is it to lease the land for revenue-producing purposes? For other purposes, such as a land exchange?

7. Justification for the Release

Describe the reasons for the release and the specific and objective airport circumstances that justify the release request.

a) If the purpose of the release is to sell the land, explain why a sale is more advantageous to the airport rather than leasing the land for revenue-producing purposes.

b) Justification must include a factual and objective statement demonstrating that the requested release unequivocally complies with each of the three requirements listed in US Code 47153, which is more fully explained in the Background section above. The release cannot be found legally sufficient, in spite of all the other supporting information, unless it can be shown that the request complies with the standards specified in the law as stated in US Code 47153 and the policy guidance in FAA Order 5190.6A..

8. Airport Graphics

Provide maps, photographs, and graphics of the airport and the land that clearly depicts the entire airport, the land to be released, and its location on the airport.

a) The location of land will be evaluated to make sure that the release does not handicap the airport's ability to serve civil aviation, commerce or national defense.

9. Disposition and Market Value of Released Land

a) Describe the proposed disposition of the property and how it will be used after release.

b) If the land will be disposed of by sale, provide a professional appraisal of the market value of the land.

c) If the land will be converted to revenue-producing uses from rental income, describe the intended uses and income-generation potential of the property.

d) Describe the terms of the proposed sale or lease. Describe the status of negotiations over the eventual disposition of the land.

e) If there are no negotiations or there is no immediate plan for the land's disposition, describe the proposed use of the land following release. Explain why the land should be released if there is no immediate plan for land's disposition.

10. Reinvestment Agreement

If the release provides for the sale of land, the airport sponsor must draw up an official declaration in the form of a resolution or ordinance by the governing body owning the airport obligating itself to use the sale or rental proceeds exclusively for developing, improving, operating, and maintaining the airport or airport system.

a) If the purpose of a sale will not result in reinvestment of the sale proceeds in airport improvements projects, explain why the use of the sale proceeds for another use is justified.

b) AWP calls the resolution or ordinance a reinvestment agreement. Depending on the specific airport circumstances and the nature of the release action, the FAA may require that the resolution or ordinance list specific uses of the sale proceeds. The reinvestment agreement may have to stipulate that the sale proceeds must be invested in specific airport improvement projects rather than spent on general operating and maintenance costs.

11. Draft Instrument of Release

Prepare and submit a legally sufficient draft of the instrument of release in accordance with the requirements of state and local law, as well as that of the FAA. The instrument of release is the legal document that the FAA uses to execute the official release action.

a) The instrument of release must reference and incorporate language from the original obligating documents (generally the quitclaim deed). The FAA will provide guidance to the airport sponsor for preparing a suitable instrument of release that satisfies federal requirements.

b) The instrument of release must include the legal description of the land being released.

c) The FAA will review the instrument of release submitted by the airport sponsor for compliance with FAA requirements. The airport sponsor should ensure that the instrument of release complies with local and state requirements.

d) The draft instrument of release will be transmitted to AWP both as a paper document and electronically or on a diskette, preferably in Microsoft Word format.

12. Environmental Assessment

Prepare and submit an environmental assessment. Since a release represents an official FAA action, an environmental determination must be submitted with the release request package to determine whether or not there is an environmental impact that might have a bearing on the FAA's release decision.

For assistance with this step, consult the AWP Project Engineer for your airport.

13. Supplemental Actions

Provide a schedule and commitment to initiate revisions, as appropriate, to required FAA documents that will have to be updated as a result of the release. They include ACIP, the ALP, Exhibit A, airport property map, FAA Form 5010. Land use changes resulting from the release must be incorporated into the affected documents as quickly as possible.

Submitting the Release Request Package

When the release request package is completed, submit the entire package to your AWP Project Engineer. We recommend that you keep a complete copy of the release request package for your records in the event additional copies are ever needed. Upon receipt of the release request package, AWP will evaluate the entire package and have it reviewed by cognizant AWP staff and management to determine if the release is fully justified and legally sufficient. If the release is determined to be satisfactory and appears to be legally sufficient, the public disclosure phase will begin.

Federal Register Notice

As explained in the Background section above, a public notice must be published in the Federal Register to provide a 30-day period for public comment regarding the proposed land release.

1. Preparation of the Notice

The airport sponsor will prepare the first draft of the Federal Register notice and submit it to AWP. AWP will provide the airport sponsor with the proper format and recommended content of the notice. AWP will review the draft, make any adjustment in content, obtain a legal review and management approval, and submit the approved notice for publication in the Federal Register.

Please transmit the draft Federal Register notice to AWP as a paper document and electronically or on a diskette, preferably in Microsoft Word format.

2. Public Notice and Comments

The public will have 30 days to submit comments to AWP and to the airport sponsor. Public comments are evaluated to determine if they have any impact on the final release decision. If there is no reason to alter the proposed release, AWP will advise the airport sponsor that the release may be granted. AWP will also instruct the airport sponsor to prepare a new Airport Layout Plan.

New Airport Layout Plan

The release will alter the approved land use and boundaries of the airport. As a result, it is necessary to produce a new ALP depicting the correct airport boundaries if land is sold or identifying a change in land use if airport land is leased for non-aeronautical purposes. The airport sponsor must initiate action to develop a new ALP and submit it to the Project Engineer for review and approval.

Release Approval

AWP will ensure that the release requirements have been completed and that the terms of the release are satisfactory. If the airport sponsor concurs with the final terms of the release as approved by AWP, AWP will prepare the instrument of release for approval signatures by the appropriate FAA and airport sponsor officials. Generally, the Airports Division Manager signs the instrument of release and delivers it to the airport sponsor for signature. A certified copy of the instrument of release with all official signatures is returned to AWP and the release process is complete.

Post-Release Phase

Caveat Regarding the Use of Land Release for Sale:

If the release authorized the sale of airport land, the airport sponsor must sell the land and use the proceeds exclusively for airport purposes. Until the land is sold, it must be treated as an airport asset and the proceeds from any interim use of the land before it is sold must be devoted to airport purposes. If the government agency owning the airport wants to use the land for a non-airport purpose, it must compensate the airport fund for such use by paying rent or the purchase price of the land at its fair market value.

AWP-620.1 - March 2003